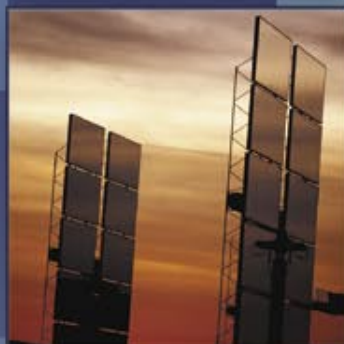


IGBT Power Modules
MOSFET Power Modules
DIODE Power Modules

CATALOG 2006

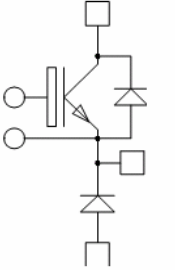
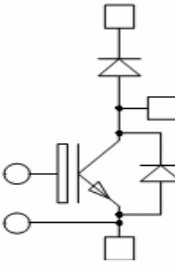
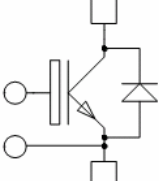
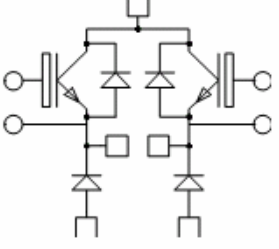
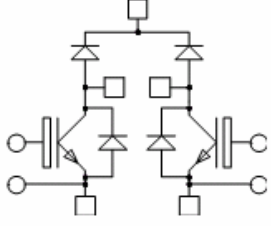
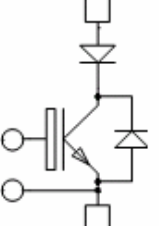
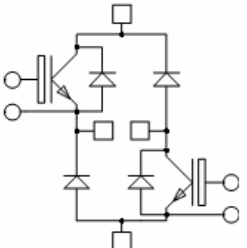
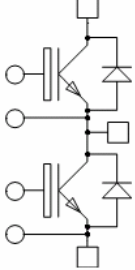
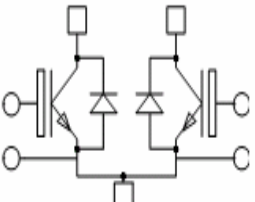
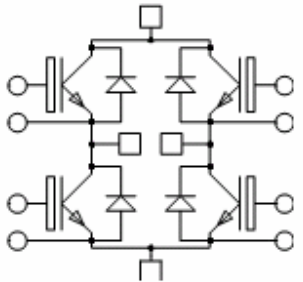
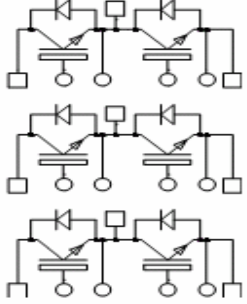
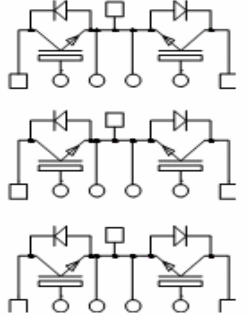


Power Products Group



High Power to 500KW
High Current: to 600A
IGBT type NPT/ Field Stop Trench

High Voltage 600V/1200V/ 1700V
High Frequency to 50KHz

<p>BUCK CHOPPER</p> 	<p>BOOST CHOPPER</p> 	<p>SINGLE SWITCH</p> 
<p>DUAL BUCK CHOPPER</p> 	<p>DUAL BOOST CHOPPER</p> 	<p>SINGLE SWITCH + SERIES DIODE</p> 
<p>ASYMMETRICAL BRIDGE</p> 	<p>PHASE LEG</p> 	<p>DUAL COMMON SOURCE</p> 
<p>FULL BRIDGE</p> 	<p>TRIPLE PHASE LEG</p> 	<p>TRIPLE DUAL COMMON SOURCE</p> 



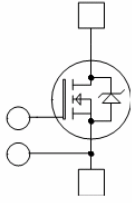
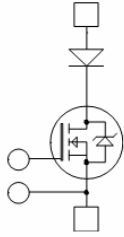
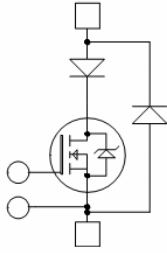
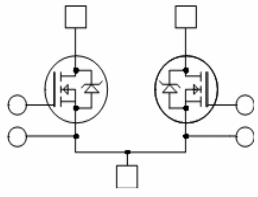
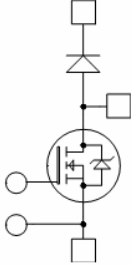
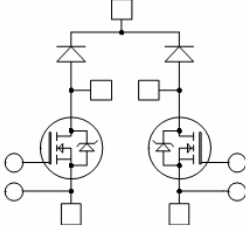
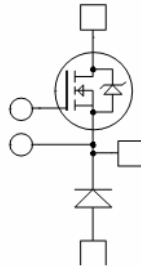
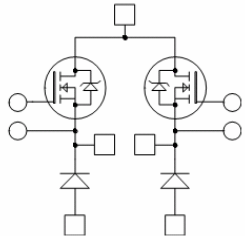
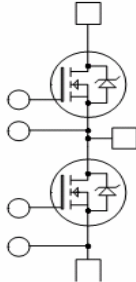
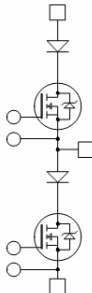
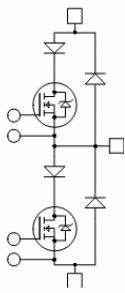
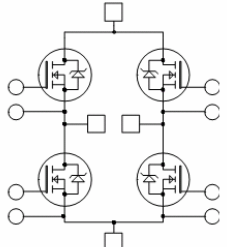
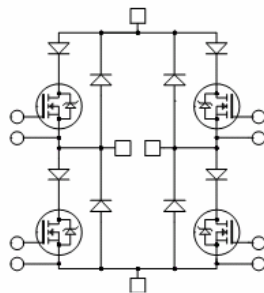
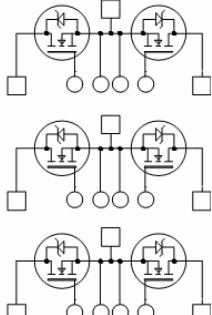
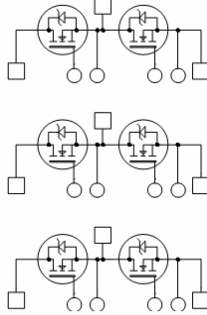
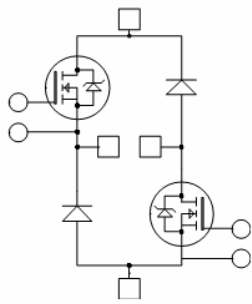
APT MOSFET Power Modules

High Power to 500KW
High Current to 640A

High Voltage
High Frequency

75/100/200/500/600/1000/1200V
to 200KHz

MOSFET or COOLMOS with Si or SiC Diodes

<p>SINGLE SWITCH</p> 	<p>SINGLE SWITCH+SERIES DIODE</p> 	<p>SINGLE SWITCH + SERIES AND PARALLEL DIODES</p> 	<p>DUAL COMMON SOURCE</p> 
<p>BOOST CHOPPER</p> 	<p>DUAL BOOST CHOPPER</p> 	<p>BUCK CHOPPER</p> 	<p>DUAL BUCK CHOPPER</p> 
<p>PHASE LEG</p> 	<p>PHASE LEG+SERIES DIODES</p> 	<p>PHASE LEG+SERIES AND SIC PARALLEL DIODES</p> 	<p>FULL BRIDGE</p> 
<p>FULL BRIDGE+SERIES AND PARALLEL DIODES</p> 	<p>TRIPLE DUAL COMMON SOURCE</p> 	<p>TRIPLE PHASE LEG</p> 	<p>ASYMMETRICAL BRIDGE</p> 

POWER MODULES

Microsemi combines a formidable array of technologies in semiconductors, packaging, and automated manufacturing to produce wide range of high quality modules optimized for:

- Reliability
- Efficiency and electrical performance
- Low cost
- Space savings
- Reduced assembly time



The readily available standard module product line spans a wide selection of circuit topologies, semiconductors including silicon carbide, voltage and current ratings, and packages. If you need even more flexibility or intellectual property protection, Microsemi can often customize a standard power module with no setup cost and with a short lead time. Unique requirements can be met with Application Specific Power Modules (ASPM®).

In addition to industrial, UPS, SMPS, and motor drive applications, Microsemi serves Hi-Rel applications. A wide selection of construction materials enables Microsemi to manufacture with short lead times modules that feature:

- Extended temperature range: -60°C to +200°C
- Extended reliability
- Reduced size and weight
- Hi-Rel testing and screening options

Microsemi's experience and expertise in power electronic conversion brings the most effective technical support for your new development. Here is how we can help with your application:

- Isolated gate driver & supply
- Temperature & current sensing
- Short circuit protection
- Mix & match semiconductors
- Snubbers
- Parameter binning

Power Module Part Numbering System

IGBT Modules	APT	G = IGBT module	Speed	Current	Circuit	Voltage	Suffix
		L Integrated		S Low Loss IGBT F Fast IGBT U Ultra Fast IGBT T Trench Gate IGBT	X 1	A Phase Leg H Full Bridge U Single Switch X 3 Phase Inverter DH Asymmetric Bridge DA Boost Chopper SK Buck Chopper DDA Double Boost Chopper DSK Double Buck Chopper DU Dual Common Source TA Triple Phase Leg TDU Triple Dual Common Source	/ 10

APT G F 300 U 120 DA

MOSFET Modules	APT	M = MOSFET module C = CoolMOS™ module	Voltage	Circuit	Rdson	Suffix
		L Integrated		/ 10	A Phase Leg H Full Bridge U Single Switch X 3 Phase Inverter DH Asymmetric Bridge DA Boost Chopper SK Buck Chopper DDA Double Boost Chopper DSK Double Buck Chopper DU Dual Common Source TA Triple Phase Leg TDU Triple Dual Common Source	if>100 : / 10 if<100 : M value

APT C 60 A M18 SCT

CoolMOS™ is a trademark of Infineon Technologies

Diode Modules	APT	D= Diode module	Type	Current	Circuit	Voltage	Suffix
				C SiC F FRED SK Schottky R Standard Rectifier	X 1	U Single H Bridge DH Dual Bridge AA Dual Common Anode KK Dual Common Cathode AK Dual Diodes	/ 10

APT D F 400 AK 60

POWER MODULE PACKAGES

Microsemi's power module packages cover a complete line of industry standard packages as well as new low profile packages featuring lower cost, less stray inductance, and lower parasitic resistance for higher efficiency, higher frequency capability, and lower EMI.

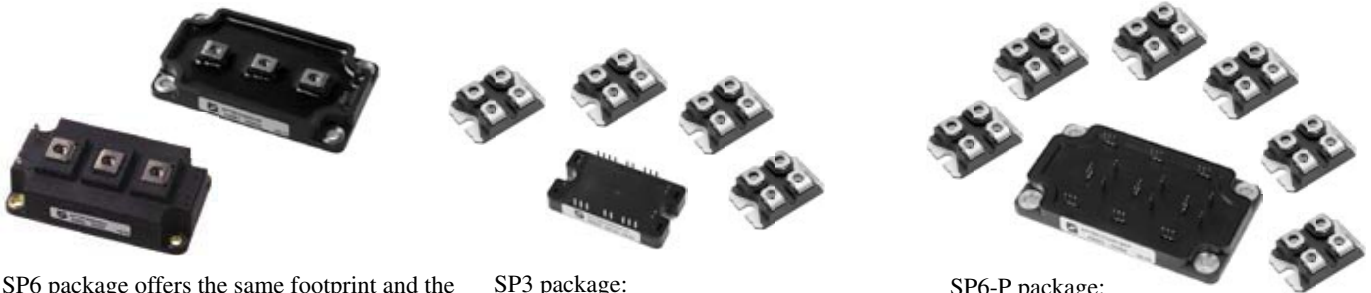
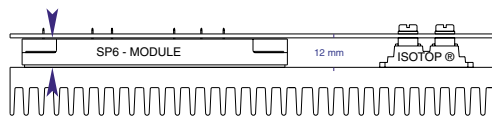
- Lower cost
- Reduced stray inductance
- Reduced parasitic resistance
- Higher efficiency
- Higher frequency capability
- Lower EMI

Improved Low Profile Packages

SP3 (12mm)
 SP4 (17mm)
 SP6 (17mm)
 SP6-P (12mm)



Package Advantages



SP6 package offers the same footprint and the same pinout location as the popular 62mm package but with lower height, leading to:

- reduced stray inductance
- reduced parasitic resistance
- higher efficiency at high frequency

SP3 package:

- Replaces up to 4 SOT-227 parts
- Reduced assembly time and cost
- Height compatible with SOT-227 package
- Copper base plate for high reliability

SP6-P package:

- Replaces up to 6 SOT-227 parts
- Height compatible with SOT-227 package
- Low inductance solder pins
- High current capability

Industry Standard Packages

SOT-227 (Isotop®)



SOT-227

Econo Types

- E2 (Long Pins)
- P2 (Short Pins)
- E3 & P3 (Short Pins)



E2



P2



E3/P3

34mm & 62mm Types

- D1 (34 mm large)
- D3 (62 mm large)
- D4 (62 mm large)



D1



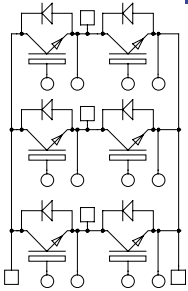
D3



D4

IGBT Power Modules

3 PHASE BRIDGE (long pin package)

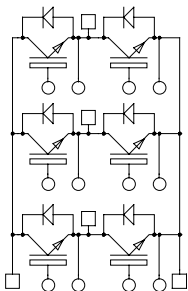


V_{CES} (V)	IGBT Type	I_c (A) $T_c=80^\circ\text{C}$	$V_{CE(ON)}$ at rated I_c	Package Style	NTC	Part Number
600	NPT	20	2.1	E2	-	APTGF20X60E2G
		30	2.1	E2	-	APTGF30X60E2G
		50	2.1	E2	-	APTGF50X60E2G
1200	NPT	10	3.2	E2	-	APTGF10X120E2G
		15	3.2	E2	-	APTGF15X120E2G
		25	3.2	E2	-	APTGF25X120E2G
1700	NPT	50	3.2	E2	-	APTGF50X120E2G
		50	3.2	E2	-	APTGS50X170E2G



E2

3 PHASE BRIDGE (short pin package)



V_{CES} (V)	IGBT Type	I_c (A) $T_c=80^\circ\text{C}$	$V_{CE(ON)}$ at rated I_c	Package Style	NTC	Part Number
600	NPT	20	2.1	P2	-	APTGF20X60P2G
		30	2.1	P2	-	APTGF30X60P2G
		50	2.1	P2	-	APTGF50X60P2G
		90	2.1	E3	-	APTGF90X60E3G
		90	2.1	E3	YES	APTGF90X60TE3G
		125	2.0	E3	-	APTGF125X60E3G
		125	2.0	E3	YES	APTGF125X60TE3G
		150	2.1	E3	-	APTGF150X60E3G
1200	NPT	10	3.2	P2	-	APTGF10X120P2G
		15	3.2	P2	-	APTGF15X120P2G
		25	3.2	P2	-	APTGF25X120P2G
		50	3.2	P2	-	APTGF50X120P2G
		50	3.2	E3	-	APTGF50X120E3G
		50	3.2	E3	YES	APTGF50X120TE3G
	Field Stop Trench	75	1.7	E3	-	APTGT75X120E3G
		75	1.7	E3	YES	APTGT75X120TE3G
		100	1.7	E3	-	APTGT100X120E3G
		100	1.7	E3	YES	APTGT100X120TE3G
1700	NPT	50	3.2	E3	-	APTGS50X170E3G
		50	3.2	E3	YES	APTGS50X170TE3G
		75	3.5	E3	-	APTGS75X170E3G
		75	3.5	E3	YES	APTGS75X170TE3G
		75	3.5	E3	-	APTGS75X170E3G
		75	3.5	E3	YES	APTGS75X170TE3G

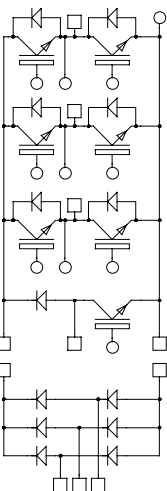


P2



E3/P3

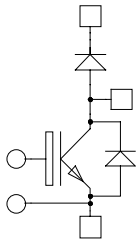
3 PHASE BRIDGE + RECTIFIER



V_{CES} (V)	IGBT Type	I_c (A) $T_c=80^\circ\text{C}$	$V_{CE(ON)}$ at rated I_c	Package Style	NTC	Part Number
600	NPT	10	2.1	P2	YES	APTGF10X60RTP2G
		10	2.1	P2	YES	APTGF10X60BTP2G
		15	2.1	P2	YES	APTGF15X60RTP2G
		15	2.1	P2	YES	APTGF15X60BTP2G
		20	2.1	P2	YES	APTGF20X60RTP2G
		20	2.1	P2	YES	APTGF20X60BTP2G
		30	2.1	P2	YES	APTGF30X60RTP2G
		30	2.1	P2	YES	APTGF30X60BTP2G
		50	2.1	P3	YES	APTGF50X60RTP3G
		50	2.1	P3	YES	APTGF50X60BTP3G
1200	NPT	10	2.5	P2	YES	APTGS10X120RTP2G
		10	2.5	P2	YES	APTGS10X120BTP2G
		15	2.5	P2	YES	APTGS15X120RTP2G
		15	2.5	P2	YES	APTGS15X120BTP2G
		25	2.5	P2	YES	APTGS25X120RTP2G
		25	2.5	P2	YES	APTGS25X120BTP2G
	Field Stop Trench	35	1.7	P3	YES	APTGT35X120RTP3G
		35	1.7	P3	YES	APTGT35X120BTP3G
		50	1.7	P3	YES	APTGT50X120RTP3G
		50	1.7	P3	YES	APTGT50X120BTP3G
1700	Field Stop Trench	75	1.7	P3	YES	APTGT75X120RTP3G
		75	1.7	P3	YES	APTGT75X120BTP3G
		50	2.0	P3	YES	APTGT50X170RTP3G
		50	2.0	P3	YES	APTGT50X170BTP3G

IGBT Power Modules

BOOST CHOPPER



V_{CES} (V)	IGBT Type	I_C (A) $T_c=80^\circ\text{C}$	$V_{CE(ON)}$ at rated I_C	Package Style	NTC	Part Number
600	NPT	30	2.1	SOT-227	-	APT30GF60JU2
		50	2.1	SOT-227	-	APT50GF60JU2
		60	2.1	SOT-227	-	APT60GF60JU2
		75	2.1	D1	-	APTGF75DA60D1G
		90	2.0	D1	-	APTGF90DA60D1G
		90	2.1	SP4	YES	APTGF90DA60TG
		100	2.1	SOT-227	-	APT100GF60JU2
		165	2.0	D1	-	APTGF165DA60D1G
	Field Stop Trench	180	2.0	D3	-	APTGF180DA60D3G
		180	2.1	SP4	YES	APTGF180DA60TG
		330	2.0	D3	-	APTGF330DA60D3G
		350	2.1	SP6	-	APTGF350DA60G
		100	1.5	SP4	YES	APTGT100DA60TG
		150	1.5	SP4	YES	APTGT150DA60TG
		200	1.5	SP4	YES	APTGT200DA60TG
		300	1.4	SP6	-	APTGT300DA60G
1200	NPT	450	1.4	SP6	-	APTGT450DA60G
		600	1.4	SP6	-	APTGT600DA60G
		50	3.2	SP4	YES	APTGF50DA120TG
		100	3.2	SP4	YES	APTGF100DA120TG
	Field Stop Trench	150	3.2	SP4	YES	APTGF150DA120TG
		300	3.2	SP6	-	APTGF300DA120G
		25	1.7	D1	-	APTGT25DA120D1G
		35	1.7	D1	-	APTGT35DA120D1G
		35	1.7	SOT-227	-	APT35GT120JU2
		50	1.7	SOT-227	-	APT50GT120JU2
		50	1.7	D1	-	APTGT50DA120D1G
		50	1.7	SP4	YES	APTGT50DA120TG
		75	1.7	D1	-	APTGT75DA120D1G
		75	1.7	SOT-227	-	APT75GT120JU2
		75	1.7	SP4	YES	APTGT75DA120TG
		75	1.7	SP4	YES	APTGT75DA120TG
Field Stop Trench	100	1.7	SOT-227	-	APT100GT120JU2	
	100	1.7	D1	-	APTGT100DA120D1G	
	100	1.7	SP4	YES	APTGT100DA120TG	
	150	1.7	SP6	-	APTGT150DA120G	
	150	1.7	D1	-	APTGT150DA120D1G	
	150	1.7	D3	-	APTGT150DA120D3G	
	150	1.7	SP4	YES	APTGT150DA120TG	
	200	1.7	SP6	-	APTGT200DA120G	
	200	1.7	D3	-	APTGT200DA120D3G	
	300	1.7	SP6	-	APTGT300DA120G	
	300	1.7	D3	-	APTGT300DA120D3G	
	400	1.7	SP6	-	APTGT400DA120G	
1700	Field Stop Trench	300	1.7	SP6	-	APTGT300DA120D3G
		30	2.0	D1	-	APTGT30DA170D1G
		50	2.0	D1	-	APTGT50DA170D1G
		50	2.0	SP4	YES	APTGT50DA170TG
		75	2.0	D1	-	APTGT75DA170D1G
		100	2.0	D1	-	APTGT100DA170D1G
		100	2.0	SP4	YES	APTGT100DA170TG
		150	2.0	SP6	-	APTGT150DA170G
		150	2.0	D1	-	APTGT150DA170D1G
		150	2.0	D3	-	APTGT150DA170D3G
		200	2.0	D3	-	APTGT200DA170D3G
		225	2.0	SP6	-	APTGT225DA170G
300	2.0	SP6	-	APTGT300DA170G		
300	2.0	D3	-	APTGT300DA170D3G		



D1



D3



SOT-227



SP3

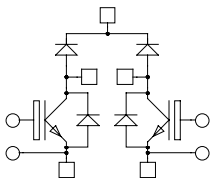


SP4



SP6

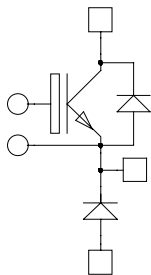
DUAL BOOST CHOPPER



V_{CES} (V)	IGBT Type	I_C (A) $T_c=80^\circ\text{C}$	$V_{CE(ON)}$ at rated I_C	Package Style	NTC	Part Number
600	NPT	50	2.1	SP3	YES	APTGF50DDA60T3G
	Field Stop Trench	20	1.5	SP3	YES	APTGT20DDA60T3G
		30	1.5	SP3	YES	APTGT30DDA60T3G
		50	1.5	SP3	YES	APTGT50DDA60T3G
		75	1.5	SP3	YES	APTGT75DDA60T3G
1200	Field Stop	100	1.5	SP3	YES	APTGT100DDA60T3G
		25	3.2	SP3	YES	APTGF25DDA120T3G
		75	3.2	SP4	YES	APTGF75DDA120TG
		50	1.7	SP3	YES	APTGT50DDA120T3G

IGBT Power Modules

BUCK CHOPPER



V _{CES} (V)	IGBT Type	I _C (A) T _C =80°C	V _{CE(ON)} at rated I _C	Package Style	NTC	Part Number		
600	NPT	30	2.1	SOT-227	-	APT30GF60JU3		
		50	2.1	SOT-227	-	APT50GF60JU3		
		60	2.1	SOT-227	-	APT60GF60JU3		
		75	2.1	D1	-	APTGF75SK60D1G		
		90	2.0	D1	-	APTGF90SK60D1G		
		90	2.1	SP4	YES	APTGF90SK60TG		
		100	2.1	SOT-227	-	APT100GF60JU3		
		165	2.0	D1	-	APTGF165SK60D1G		
		180	2.0	D3	-	APTGF180SK60D3G		
		180	2.1	SP4	YES	APTGF180SK60TG		
	Field Stop Trench	330	2.0	D3	-	APTGF330SK60D3G		
		350	2.1	SP6	-	APTGF350SK60G		
		100	1.5	SP4	YES	APTGT100SK60TG		
		150	1.5	SP4	YES	APTGT150SK60TG		
		200	1.5	SP4	YES	APTGT200SK60TG		
1200	NPT	50	3.2	SP4	YES	APTGF50SK120TG		
		100	3.2	SP4	YES	APTGF100SK120TG		
		150	3.2	SP4	YES	APTGF150SK120TG		
		300	3.2	SP6	-	APTGF300SK120G		
	Field Stop Trench	25	1.7	D1	-	APTGT25SK120D1G		
		35	1.7	SOT-227	-	APT35GT120JU3		
		35	1.7	D1	-	APTGT35SK120D1G		
		50	1.7	SOT-227	-	APT50GT120JU3		
		50	1.7	D1	-	APTGT50SK120D1G		
		50	1.7	SP4	YES	APTGT50SK120TG		
		75	1.7	D1	-	APTGT75SK120D1G		
		75	1.7	SP4	YES	APTGT75SK120TG		
		75	1.7	SOT-227	-	APT75GT120JU3		
		100	1.7	SOT-227	-	APT100GT120JU3		
		100	1.7	D1	-	APTGT100SK120D1G		
		100	1.7	SP4	YES	APTGT100SK120TG		
		150	1.7	SP6	-	APTGT150SK120G		
		150	1.7	D1	-	APTGT150SK120D1G		
		150	1.7	D3	-	APTGT150SK120D3G		
		150	1.7	SP4	YES	APTGT150SK120TG		
		200	1.7	SP6	-	APTGT200SK120G		
		200	1.7	D3	-	APTGT200SK120D3G		
		300	1.7	SP6	-	APTGT300SK120G		
		300	1.7	D3	-	APTGT300SK120D3G		
		400	1.7	SP6	-	APTGT400SK120G		
		1700	Field Stop Trench	30	2.0	D1	-	APTGT30SK170D1G
				50	2.0	D1	-	APTGT50SK170D1G
				50	2.0	SP4	YES	APTGT50SK170TG
				75	2.0	D1	-	APTGT75SK170D1G
				100	2.0	D1	-	APTGT100SK170D1G
100	2.0			SP4	YES	APTGT100SK170TG		
150	2.0			SP6	-	APTGT150SK170G		
150	2.0			D1	-	APTGT150SK170D1G		
150	2.0			D3	-	APTGT150SK170D3G		
200	2.0			D3	-	APTGT200SK170D3G		
225	2.0			SP6	-	APTGT225SK170G		
300	2.0			SP6	-	APTGT300SK170G		
300	2.0	D3	-	APTGT300SK170D3G				



D1



D3



SOT-227



SP3

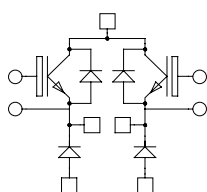


SP4



SP6

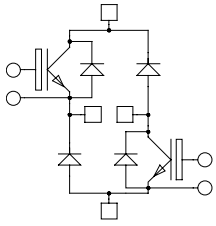
DUAL BUCK CHOPPER



V _{CES} (V)	IGBT Type	I _C (A) T _C =80°C	V _{CE(ON)} at rated I _C	Package Style	NTC	Part Number
600	NPT	50	2.1	SP3	YES	APTGF50DSK60T3G
		20	1.5	SP3	YES	APTGT20DSK60T3G
	Field Stop Trench	30	1.5	SP3	YES	APTGT30DSK60T3G
		50	1.5	SP3	YES	APTGT50DSK60T3G
		75	1.5	SP3	YES	APTGT75DSK60T3G
1200	NPT	100	1.5	SP3	YES	APTGT100DSK60T3G
		25	3.2	SP3	YES	APTGF25DSK120T3G
	Field Stop	75	3.2	SP4	YES	APTGF75DSK120TG
		50	1.7	SP3	YES	APTGT50DSK120T3G

IGBT Power Modules

ASYMMETRICAL BRIDGE



V_{CES} (V)	IGBT Type	I_c (A) $T_c=80^\circ\text{C}$	$V_{CE(ON)}$ at rated I_c	Package Style	NTC	Part Number
600	NPT	50	2.1	SP4	YES	APTF50DH60TG
		90	2.1	SP4	YES	APTF90DH60TG
		180	2.1	SP6	-	APTF180DH60G
	Field Stop Trench	50	1.5	SP4	YES	APTGT50DH60TG
		75	1.5	SP4	YES	APTGT75DH60TG
		100	1.5	SP4	YES	APTGT100DH60TG
		150	1.5	SP4	YES	APTGT150DH60TG
200		1.5	SP6	-	APTGT200DH60G	
300	1.4	SP6	-	APTGT300DH60G		
1200	NPT	50	3.2	SP4	YES	APTF50DH120TG
		75	3.2	SP4	YES	APTF75DH120TG
		150	3.2	SP6	-	APTF150DH120G
	Field Stop Trench	50	1.7	SP4	YES	APTGT50DH120TG
		75	1.7	SP4	YES	APTGT75DH120TG
		100	1.7	SP4	YES	APTGT100DH120TG
		150	1.7	SP6	-	APTGT150DH120G
200	1.7	SP6	-	APTGT200DH120G		
1700	Field Stop Trench	50	2.0	SP4	YES	APTGT50DH170TG
		100	2.0	SP6	-	APTGT100DH170G
		150	2.0	SP6	-	APTGT150DH170G



D4



SP3

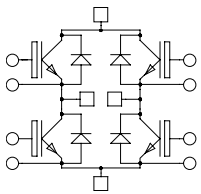


SP4



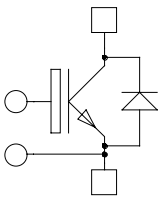
SP6

FULL BRIDGE



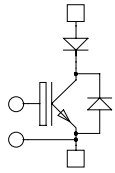
V_{CES} (V)	IGBT Type	I_c (A) $T_c=80^\circ\text{C}$	$V_{CE(ON)}$ at rated I_c	Package Style	NTC	Part Number
600	NPT	30	2.1	SP3	YES	APTF30H60T3G
		50	2.1	SP3	YES	APTF50H60T3G
		90	2.1	SP4	YES	APTF90H60TG
		180	2.1	SP6	-	APTF180H60G
	Field Stop Trench	20	1.5	SP3	YES	APTGT20H60T3G
		30	1.5	SP3	YES	APTGT30H60T3G
		50	1.5	SP3	YES	APTGT50H60T3G
		75	1.5	SP3	YES	APTGT75H60T3G
		100	1.5	SP4	YES	APTGT100H60TG
		100	1.5	SP3	YES	APTGT100H60T3G
		150	1.5	SP4	YES	APTGT150H60TG
		200	1.5	SP6	-	APTGT200H60G
		300	1.4	SP6	-	APTGT300H60G
1200	NPT	15	3.2	SP3	YES	APTF15H120T3G
		25	3.2	SP3	YES	APTF25H120T3G
		50	3.2	SP4	YES	APTF50H120TG
		75	3.2	SP4	YES	APTF75H120TG
		150	3.2	SP6	-	APTF150H120G
	Field Stop Trench	35	1.7	SP3	YES	APTGT35H120T3G
		50	1.7	SP4	YES	APTGT50H120TG
		50	1.7	SP3	YES	APTGT50H120T3G
		75	1.7	SP4	YES	APTGT75H120TG
		100	1.7	SP6	-	APTGT100H120G
		150	1.7	SP6	-	APTGT150H120G
		200	1.7	SP6	-	APTGT200H120G
		200	1.7	SP6	-	APTGT200H120G
1700	Field Stop Trench	30	2.0	SP3	YES	APTGT30H170T3G
		50	2.0	SP4	YES	APTGT50H170TG
		100	2.0	SP6	-	APTGT100H170G
		150	2.0	SP6	-	APTGT150H170G

SINGLE SWITCH



V_{CES} (V)	IGBT Type	I_c (A) $T_c=80^\circ\text{C}$	$V_{CE(ON)}$ at rated I_c	Package Style	NTC	Part Number
600	NPT	200	2.1	D4	-	APTF200U60D4G
		300	2.1	D4	-	APTF300U60D4G
		360	2.0	D4	-	APTF360U60D4G
		500	2.0	D4	-	APTF500U60D4G
		660	2.0	D4	-	APTF660U60D4G
1200	Field Stop Trench	200	1.7	D4	-	APTGT200U120D4G
		300	1.7	D4	-	APTGT300U120D4G
		400	1.7	D4	-	APTGT400U120D4G
		600	1.7	D4	-	APTGT600U120D4G
1700	Field Stop Trench	200	2.0	D4	-	APTGT200U170D4G
		300	2.0	D4	-	APTGT300U170D4G
		400	2.0	D4	-	APTGT400U170D4G
600	2.0	D4	-	APTGT600U170D4G		

IGBT Power Modules

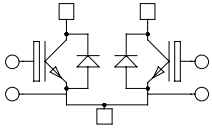


SINGLE SWITCH + SERIES DIODE

V _{CES} (V)	IGBT Type	I _C (A) T _c =80°C	V _{CE(ON)} at rated I _c	Package Style	NTC	Part Number
1200	NPT	200	3.2	SP6	-	APTGF200U120DG
		300	3.2	SP6	-	APTGF300U120DG



SP4



DUAL COMMON SOURCE

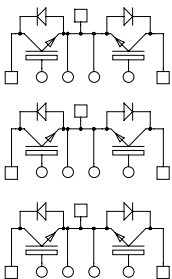
V _{CES} (V)	IGBT Type	I _C (A) T _c =80°C	V _{CE(ON)} at rated I _c	Package Style	NTC	Part Number
600	NPT	90	2.1	SP4	YES	APTGF90DU60TG
		180	2.1	SP4	YES	APTGF180DU60TG
		350	2.1	SP6	-	APTGF350DU60G
	Field Stop Trench	100	1.5	SP4	YES	APTGT100DU60TG
		150	1.5	SP4	YES	APTGT150DU60TG
		200	1.5	SP4	YES	APTGT200DU60TG
		300	1.4	SP6	-	APTGT300DU60G
		450	1.4	SP6	-	APTGT450DU60G
1200	NPT	50	3.2	SP4	YES	APTGF50DU120TG
		100	3.2	SP4	YES	APTGF100DU120TG
		150	3.2	SP4	YES	APTGF150DU120TG
		300	3.2	SP6	-	APTGF300DU120G
	Field Stop Trench	50	1.7	SP4	YES	APTGT50DU120TG
		75	1.7	SP4	YES	APTGT75DU120TG
		100	1.7	SP4	YES	APTGT100DU120TG
		150	1.7	SP6	-	APTGT150DU120G
		150	1.7	SP4	YES	APTGT150DU120TG
		200	1.7	SP6	-	APTGT200DU120G
		300	1.7	SP6	-	APTGT300DU120G
		400	1.7	SP6	-	APTGT400DU120G
1700	Field Stop Trench	50	2.0	SP4	YES	APTGT50DU170TG
		100	2.0	SP4	YES	APTGT100DU170TG
		150	2.0	SP6	-	APTGT150DU170G
		225	2.0	SP6	-	APTGT225DU170G
300	2.0	SP6	-	APTGT300DU170G		



SP6



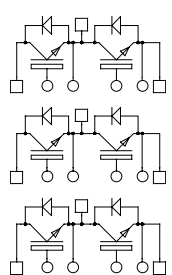
SP6-P



TRIPLE DUAL COMMON SOURCE

V _{CES} (V)	IGBT Type	I _C (A) T _c =80°C	V _{CE(ON)} at rated I _c	Package Style	NTC	Part Number
600	NPT	90	2.1	SP6-P	-	APTGF90TDU60PG
		50	1.5	SP6-P	-	APTGT50TDU60PG
	Field Stop Trench	75	1.5	SP6-P	-	APTGT75TDU60PG
		100	1.5	SP6-P	-	APTGT100TDU60PG
		150	1.5	SP6-P	-	APTGT150TDU60PG
1200	NPT	50	3.2	SP6-P	-	APTGF50TDU120PG
	Field Stop	75	1.7	SP6-P	-	APTGT75TDU120PG
1700	Field Stop	50	2.0	SP6-P	-	APTGT50TDU170PG

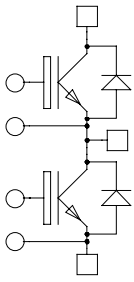
TRIPLE PHASE LEG



V _{CES} (V)	IGBT Type	I _C (A) T _c =80°C	V _{CE(ON)} at rated I _c	Package Style	NTC	Part Number
600	NPT	90	2.1	SP6-P	-	APTGF90TA60PG
		50	1.5	SP6-P	-	APTGT50TA60PG
	Field Stop Trench	75	1.5	SP6-P	-	APTGT75TA60PG
		100	1.5	SP6-P	-	APTGT100TA60PG
		150	1.5	SP6-P	-	APTGT150TA60PG
1200	NPT	50	3.2	SP6-P	-	APTGF50TA120PG
	Field Stop	75	1.7	SP6-P	-	APTGT75TA120PG
1700	Field Stop	50	2.0	SP6-P	-	APTGT50TA170PG

IGBT Power Modules

PHASE LEG



V _{CES} (V)	IGBT Type	I _c (A) T _c =80° C	V _{CE(ON)} at rated I _c	Package Style	NTC	Part Number		
600	NPT	90	2.0	D1	-	APTGF90A60D1G		
		90	2.1	SP4	YES	APTGF90A60TG		
		165	2.0	D1	-	APTGF165A60D1G		
		180	2.0	D3	-	APTGF180A60D3G		
		180	2.1	SP4	YES	APTGF180A60TG		
		330	2.0	D3	-	APTGF330A60D3G		
	Field Stop Trench	350	2.1	SP6	-	APTGF350A60G		
		100	1.5	SP4	YES	APTGT100A60TG		
		150	1.5	SP4	YES	APTGT150A60TG		
		200	1.5	SP4	YES	APTGT200A60TG		
		300	1.4	SP6	-	APTGT300A60G		
		450	1.4	SP6	-	APTGT450A60G		
1200	NPT	600	1.4	SP6	-	APTGT600A60G		
		50	3.2	SP4	YES	APTGF50A120TG		
		100	3.2	SP4	YES	APTGF100A120TG		
		150	3.2	SP4	YES	APTGF150A120TG		
	Field Stop Trench	300	3.2	SP6	-	APTGF300A120G		
		25	1.7	D1	-	APTGT25A120D1G		
		35	1.7	D1	-	APTGT35A120D1G		
		50	1.7	D1	-	APTGT50A120D1G		
		50	1.7	SP4	YES	APTGT50A120TG		
		75	1.7	D1	-	APTGT75A120D1G		
		75	1.7	SP4	YES	APTGT75A120TG		
		100	1.7	D1	-	APTGT100A120D1G		
		100	1.7	SP4	YES	APTGT100A120TG		
		150	1.7	SP6	-	APTGT150A120G		
		150	1.7	D1	-	APTGT150A120D1G		
		150	1.7	D3	-	APTGT150A120D3G		
		150	1.7	SP4	YES	APTGT150A120TG		
		200	1.7	SP6	-	APTGT200A120G		
		200	1.7	D3	-	APTGT200A120D3G		
		300	1.7	SP6	-	APTGT300A120G		
		300	1.7	D3	-	APTGT300A120D3G		
		400	1.7	SP6	-	APTGT400A120G		
		1700	Field Stop Trench	30	2.0	D1	-	APTGT30A170D1G
				50	2.0	D1	-	APTGT50A170D1G
50	2.0			SP4	YES	APTGT50A170TG		
75	2.0			D1	-	APTGT75A170D1G		
100	2.0			D1	-	APTGT100A170D1G		
100	2.0			SP4	YES	APTGT100A170TG		
150	2.0			SP6	-	APTGT150A170G		
150	2.0			D1	-	APTGT150A170D1G		
150	2.0			D3	-	APTGT150A170D3G		
200	2.0			D3	-	APTGT200A170D3G		
225	2.0			SP6	-	APTGT225A170G		
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300	2.0			D3	-	APTGT300A170D3G		



D1



D3



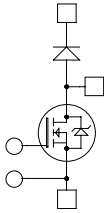
SP4



SP6

MOSFET Power Modules

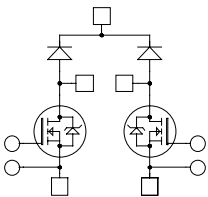
BOOST CHOPPER



V _{DSS} (V)	MOSFET Type	R _{DS(ON)} m Ohms	I _D (A) T _C =80° C	Package Style	NTC	Part Number
100	MOS 5	11	100	SOT-227	-	APT10M11JV RU2
		4.5	207	SP4	YES	APT M10DAM05TG
	MOS 7	2.25	370	SP6	-	APT M10DAM02G
200	MOS 5	22	71	SOT-227	-	APT20M22JV RU2
		10	125	SP4	YES	APT M20DAM10TG
	MOS 7	8	147	SP4	YES	APT M20DAM08TG
		5	250	SP6	-	APT M20DAM05G
		4	300	SP6	-	APT M20DAM04G
		100	30	SOT-227	-	APT5010JV RU2
500	MOS 5	100	30	SOT-227	-	APT5010JLLU2
		75	32	SOT-227	-	APT50M75JLLU2
		38	64	SP4	YES	APT M50DAM38TG
	MOS 7	35	70	SP4	YES	APT M50DAM35TG
		19	125	SP6	-	APT M50DAM19G
		17	140	SP6	-	APT M50DAM17G
600	COOLMOS	70	40	SOT-227	-	APT40N60JCU2
1000	MOS 7	180	33	SP4	YES	APT M100DA18TG
		90	59	SP6	-	APT M100DAM90G
1200	MOS 7	290	25	SP4	YES	APT M120DA29TG
		150	45	SP6	-	APT M120DA15G



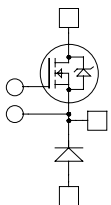
DUAL BOOST CHOPPER



V _{DSS} (V)	MOSFET Type	R _{DS(ON)} m Ohms	I _D (A) T _C =80° C	Style	Package NTC	Part Number
100	MOS 7	19	50	SP3	YES	APT M10DDAM19T3G
		9	100	SP3	YES	APT M10DDAM09T3G
500	MOS 7	100	24	SP3	YES	APT M50DDA10T3G
		65	37	SP3	YES	APT M50DDAM65T3G
600	COOLMOS	70	29	SP3	YES	APTC60DDAM70T3G
		35	54	SP3	YES	APTC60DDAM35T3G
800	COOLMOS	290	11	SP3	YES	APTC80DDA29T3G
		150	21	SP3	YES	APTC80DDA15T3G
		350	17	SP3	YES	APT M100DDA35T3G
1200	MOS 7	570	13	SP3	YES	APT M120DDA57T3G



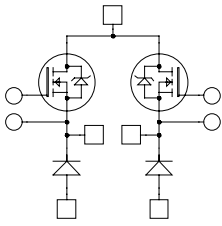
BUCK CHOPPER



V _{DSS} (V)	MOSFET Type	R _{DS(ON)} m Ohms	I _D (A) T _C =80° C	Package Style	NTC	Part Number
100	MOS 5	11	100	SOT-227	-	APT10M11JV RU3
		4.5	207	SP4	YES	APT M10SKM05TG
	MOS 7	2.25	370	SP6	-	APT M10SKM02G
200	MOS 5	22	71	SOT-227	-	APT20M22JV RU3
		10	125	SP4	YES	APT M20SKM10TG
	MOS 7	8	147	SP4	YES	APT M20SKM08TG
		5	250	SP6	-	APT M20SKM05G
		4	300	SP6	-	APT M20SKM04G
		100	30	SOT-227	-	APT5010JV RU3
500	MOS 5	100	30	SOT-227	-	APT5010JLLU3
		75	32	SOT-227	-	APT50M75JLLU3
		38	64	SP4	YES	APT M50SKM38TG
	MOS 7	35	70	SP4	YES	APT M50SKM35TG
		19	125	SP6	-	APT M50SKM19G
		17	140	SP6	-	APT M50SKM17G
600	COOLMOS	70	40	SOT-227	-	APT40N60JCU3
1000	MOS 7	180	33	SP4	YES	APT M100SK18TG
		90	59	SP6	-	APT M100SKM90G
1200	MOS 7	290	25	SP4	YES	APT M120SK29TG
		150	45	SP6	-	APT M120SK15G

MOSFET Power Modules

DUAL BUCK CHOPPER

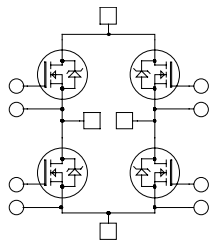


V _{DSS} (V)	MOSFET TYPE	R _{DS(ON)} m Ohms	I _D (A) T _C =80° C	Package Style	NTC	Part Number
100	MOS 7	19	50	SP3	YES	APTM10DSKM19T3G
		9	100	SP3	YES	APTM10DSKM09T3G
500	MOS 7	100	24	SP3	YES	APTM50DSK10T3G
		65	37	SP3	YES	APTM50DSKM65T3G
600	COOLMOS	70	29	SP3	YES	APTC60DSKM70T3G
		35	54	SP3	YES	APTC60DSKM35T3G
800	COOLMOS	290	11	SP3	YES	APTC80DSK29T3G
		150	21	SP3	YES	APTC80DSK15T3G
1000	MOS 7	350	17	SP3	YES	APTM100DSK35T3G
1200	MOS 7	570	13	SP3	YES	APTM120DSK57T3G



LP8

FULL BRIDGE



V _{DSS} (V)	MOSFET TYPE	R _{DS(ON)} m Ohms	I _D (A) T _C =80° C	Package Style	NTC	Part Number
100	FREDFET 7	4.5	207	SP6	-	APTM10HM05FG
		19	50	SP3	YES	APTM10HM19FT3G
		9	100	SP3	YES	APTM10HM09FT3G
		9	100	SP4	YES	APTM10HM09FTG
200	FREDFET 7	20	62	SP4	YES	APTM20HM20FTG
		16	74	SP4	YES	APTM20HM16FTG
		10	125	SP6	-	APTM20HM10FG
		8	147	SP6	-	APTM20HM08FG
500	FREDFET 7	140	18	SP3	YES	APTM50H14FT3G
		100	24	SP3	YES	APTM50H10FT3G
		75	32	SP4	YES	APTM50HM75FTG
		75	32	SP3	YES	APTM50HM75FT3G
		65	37	SP4	YES	APTM50HM65FTG
		65	37	SP3	YES	APTM50HM65FT3G
600	COOLMOS	70	29	SP3	YES	APTC60HM70T3G
		35	54	SP3	YES	APTC60HM35T3G
800	COOLMOS	290	11	SP3	YES	APTC80H29T3G
		150	21	SP3	YES	APTC80H15T3G
1000	FREDFET 7	450	14	SP3	YES	APTM100H45FT3G
		350	17	SP4	YES	APTM100H35FTG
		350	17	SP3	YES	APTM100H35FT3G
1200	FREDFET 7	180	33	SP6	-	APTM100H18FG
		570	13	SP4	YES	APTM120H57FTG
		570	13	SP3	YES	APTM120H57FT3G
		290	25	SP6	-	APTM120H29FG



SP3

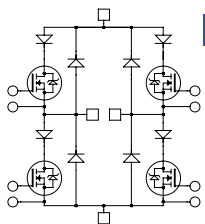


SP4



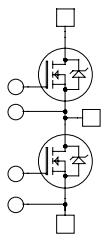
SP6

FULL BRIDGE + SERIES AND PARALLEL DIODES



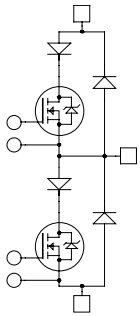
V _{DSS} (V)	MOSFET TYPE	R _{DS(ON)} m Ohms	I _D (A) T _C =80° C	Package Style	NTC	Part Number
200	MOS 7	20	62	SP4	YES	APTM20HM20STG
500	MOS 7	75	32	SP4	YES	APTM50HM75STG
1000	MOS 7	450	13	SP4	YES	APTM100H45STG

PHASE LEG



V _{DSS} (V)	MOSFET TYPE	R _{DS(ON)} m Ohms	I _D (A) T _C =80° C	Package Style	NTC	Part Number
100	FREDFET 7	4.5	207	SP4	YES	APTM10AM05FTG
		2.25	370	SP6	-	APTM10AM02FG
200	FREDFET 7	10	125	SP4	YES	APTM20AM10FTG
		8	147	SP4	YES	APTM20AM08FTG
		5	250	SP6	-	APTM20AM05FG
		5	250	LP8	YES	APTM20AM05FTG
500	FREDFET 7	4	300	SP6	-	APTM20AM04FG
		38	64	SP4	YES	APTM50AM38FTG
		35	70	SP4	YES	APTM50AM35FTG
		25	110	LP8	YES	APTM50AM25FTG
1000	FREDFET 7	19	125	SP6	-	APTM50AM19FG
		17	140	SP6	-	APTM50AM17FG
1200	FREDFET 7	180	33	SP4	YES	APTM100A18FTG
		90	59	SP6	-	APTM100AM90FG
1200	FREDFET 7	290	25	SP4	YES	APTM120A29FTG
		150	45	SP6	-	APTM120A15FG

MOSFET Power Modules



PHASE LEG + SERIES AND PARALLEL DIODES

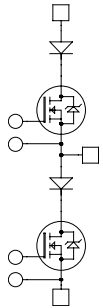
V _{DSS} (V)	MOSFET Type	R _{DS(ON)} m Ohms	I _D (A) T _c =80° C	Package Style	NTC	Part Number
200	MOS 7	10	125	SP4	YES	APTM20AM10STG
		6	225	SP6	-	APTM20AM06SG
500	MOS 7	38	64	SP4	YES	APTM50AM38STG
		24	110	SP6	-	APTM50AM24SG
		19	125	LP8W	YES	APTM50AM19STG
1000	MOS 7	230	26	SP4	YES	APTM100A23STG
		130	49	SP6	-	APTM100A13SG
		120	50	LP8W	YES	APTM100A12STG
1200	MOS 7	200	37	SP6	-	APTM120A20SG



LP8W



SP4



PHASE LEG + SERIES DIODES

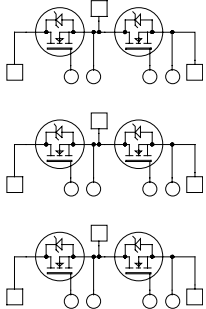
V _{DSS} (V)	MOSFET Type	R _{DS(ON)} m Ohms	I _D (A) T _c =80° C	Package Style	NTC	Part Number
1000	MOS 7	130	49	SP6	-	APTM100A13DG
1200	MOS 7	200	37	SP6	-	APTM120A20DG



SP6



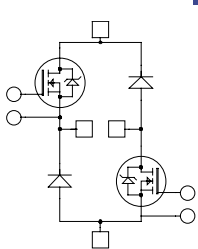
SP6-P



TRIPLE PHASE LEG

V _{DSS} (V)	MOSFET Type	R _{DS(ON)} m Ohms	I _D (A) T _c =80° C	Package Style	NTC	Part Number
75	MOS 7	4.2	90	SP6-P	-	APTM08TAM04PG
100	FREDFET 7	19	50	SP6-P	-	APTM10TAM19FPG
		9	100	SP6-P	-	APTM10TAM09FPG
200	FREDFET 7	16	74	SP6-P	-	APTM20TAM16FPG
500	FREDFET 7	65	37	SP6-P	-	APTM50TAM65FPG
600	COOLMOS	35	54	SP6-P	-	APTC60TAM35PG
800	COOLMOS	150	21	SP6-P	-	APTC80TA15PG
1000	FREDFET 7	350	17	SP6-P	-	APTM100TA35FPG
1200	FREDFET 7	570	13	SP6-P	-	APTM120TA57FPG

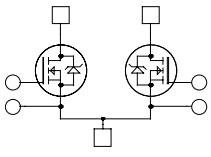
ASYMMETRICAL BRIDGE



V _{DSS} (V)	MOSFET Type	R _{DS(ON)} m Ohms	I _D (A) T _c =80° C	Package Style	NTC	Part Number
100	MOS 7	4.5	207	SP4	-	APTM10DHM05G
		9	100	SP4	YES	APTM10DHM09TG
200	MOS 7	20	62	SP4	YES	APTM20DHM20TG
		16	74	SP4	YES	APTM20DHM16TG
		10	125	SP6	-	APTM20DHM10G
		8	147	SP6	-	APTM20DHM08G
500	MOS 7	75	32	SP4	YES	APTM50DHM75TG
		65	37	SP4	YES	APTM50DHM65TG
		38	64	SP6	-	APTM50DHM38G
		35	70	SP6	-	APTM50DHM35G

MOSFET Power Modules

DUAL COMMON SOURCE



V _{DSS} (V)	MOSFET Type	R _{DS(ON)} m Ohms	I _D (A) T _C =80° C	Package Style	NTC	Part Number
100	MOS 7	4.5	207	SP4	YES	APTM10DUM05TG
		2.25	370	SP6	-	APTM10DUM02G
200	MOS 7	10	125	SP4	YES	APTM20DUM10TG
		8	147	SP4	YES	APTM20DUM08TG
		5	250	SP6	-	APTM20DUM05G
		5	250	LP8	YES	APTM20DUM05TG
		4	300	SP6	-	APTM20DUM04G
500	MOS 7	38	64	SP4	YES	APTM50DUM38TG
		35	70	SP4	YES	APTM50DUM35TG
		25	110	LP8	YES	APTM50DUM25TG
		19	125	SP6	-	APTM50DUM19G
		17	140	SP6	-	APTM50DUM17G
1000	MOS 7	180	33	SP4	YES	APTM100DU18TG
		90	59	SP6	-	APTM100DUM90G
1200	MOS 7	290	25	SP4	YES	APTM120DU29TG
		150	45	SP6	-	APTM120DU15G

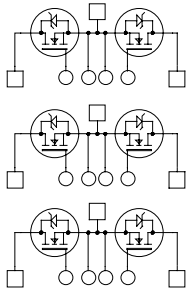


J3



LP8

TRIPLE DUAL COMMON SOURCE



V _{DSS} (V)	MOSFET Type	R _{DS(ON)} m Ohms	I _D (A) T _C =80° C	Package Style	NTC	Part Number
75	MOS 7	4.2	90	SP6-P	-	APTM08TDUM04PG
100	MOS 7	19	50	SP6-P	-	APTM10TDUM19PG
		9	100	SP6-P	-	APTM10TDUM09PG
200	MOS 7	16	74	SP6-P	-	APTM20TDUM16PG
500	MOS 7	65	37	SP6-P	-	APTM50TDUM65PG
600	COOLMOS	35	54	SP6-P	-	APTC60TDUM35PG
800	COOLMOS	150	21	SP6-P	-	APTC80TDU15PG
1000	MOS 7	350	17	SP6-P	-	APTM120TDU35PG
1200	MOS 7	570	13	SP6-P	-	APTM120TDU57PG

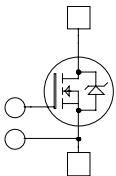


SP4



SP6

SINGLE SWITCH

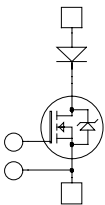


V _{DSS} (V)	MOSFET Type	R _{DS(ON)} m Ohms	I _D (A) T _C =80° C	Package Style	NTC	Part Number
100	FREDFET 7	2.25	430	SP6	-	APTM10UM02FAG
		1.50	640	SP6	-	APTM10UM01FAG
200	FREDFET 7	3	434	SP6	-	APTM20UM03FAG
500	FREDFET 7	9	371	SP6	-	APTM50UM09FAG
1000	FREDFET 7	60	97	SP6	-	APTM100UM60FAG
		45	160	SP6	-	APTM100UM45FAG
1200	FREDFET 7	95	77	SP6	-	APTM120UM95FAG
		70	126	SP6	-	APTM120UM70FAG



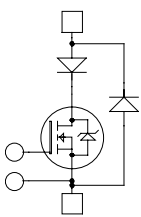
SP6-P

SINGLE SWITCH + SERIES DIODE



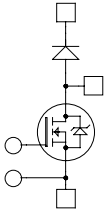
V _{DSS} (V)	MOSFET Type	R _{DS(ON)} m Ohms	I _D (A) T _C =80° C	Package Style	NTC	Part Number
1000	MOS 7	65	110	SP6	-	APTM100UM65DAG
		45	160	SP6	-	APTM100UM45DAG
1200	MOS 7	100	86	SP6	-	APTM120U100DAG
		70	126	SP6	-	APTM120UM70DAG

SINGLE SWITCH + SERIES AND PARALLEL DIODES



V _{DSS} (V)	MOSFET Type	R _{DS(ON)} m Ohms	I _D (A) T _C =80° C	Package Style	NTC	Part Number
200	MOS 7	9	145	J3	-	APTM20UM09SG
		5	237	J3	-	APTM20UM05SG
		4	310	SP6	-	APTM20UM04SAG
500	MOS 7	25	110	J3	-	APTM50UM25SG
		19	122	J3	-	APTM50UM19SG
		13	250	SP6	-	APTM50UM13SAG
1000	MOS 7	130	48	J3	-	APTM100U13SG
		65	100	SP6	-	APTM100UM65SAG
1200	MOS 7	100	86	SP6	-	APTM120U100SAG

MOSFET Power Modules with SiC Diodes

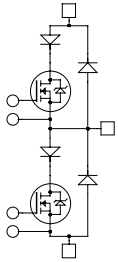


BOOST CHOPPER WITH SiC DIODES

V _{DSS} (V)	MOSFET Type	R _{DS(ON)} m Ohms	I _D (A) T _C =80° C	Package Style	NTC	Part Number
500	MOS 7	38	67	SP4	YES	APTM50DAM38CTG



SP4

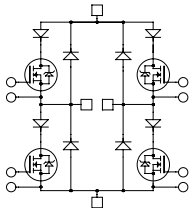


PHASE LEG + SERIES AND SiC PARALLEL DIODES

V _{DSS} (V)	MOSFET Type	R _{DS(ON)} m Ohms	I _D (A) T _C =80° C	Package Style	NTC	Part Number
500	MOS 7	38	67	SP4	YES	APTM50AM38SCTG
		24	110	SP6	-	APTM50AM24SCG
1000	MOS 7	230	27	SP4	YES	APTM100A23SCTG
		130	49	SP6	-	APTM100A13SCG



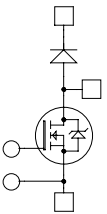
SP6



FULL BRIDGE + SERIES AND SiC PARALLEL DIODES

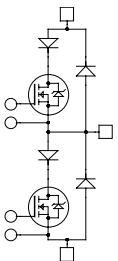
V _{DSS} (V)	MOSFET Type	R _{DS(ON)} m Ohms	I _D (A) T _C =80° C	Package Style	NTC	Part Number
500	MOS 7	75	34	SP4	YES	APTM50HM75SCTG
1000	MOS 7	450	14	SP4	YES	APTM100H45SCTG

COOLMOS™ Power Modules with SiC Diodes



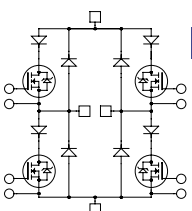
BOOST CHOPPER WITH SiC DIODES

V _{DSS} (V)	MOSFET Type	R _{DS(ON)} m Ohms	I _D (A) T _C =80° C	Package Style	NTC	Part Number
600	COOLMOS	18	107	SP4	YES	APTC60DAM18CTG



PHASE LEG + SERIES AND SiC PARALLEL DIODES

V _{DSS} (V)	MOSFET TYPE	R _{DS(ON)} m Ohms	I _D (A) T _C =80° C	Package Style	NTC	Part Number
600	COOLMOS	35	54	SP4	YES	APTC60AM35SCTG
		18	107	SP6	-	APTC60AM18SCG
		150	21	SP4	YES	APTC80A15SCTG
800	COOLMOS	100	32	SP4	YES	APTC80A10SCTG
		75	43	SP6	-	APTC80AM75SCG

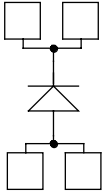


FULL BRIDGE + SERIES AND SiC PARALLEL DIODES

V _{DSS} (V)	MOSFET TYPE	R _{DS(ON)} m Ohms	I _D (A) T _C =80° C	Package Style	NTC	Part Number
600	COOLMOS	70	29	SP4	YES	APTC60HM70SCTG
800	COOLMOS	290	11	SP4	YES	APTC80H29SCTG

DIODE Power Modules

SINGLE DIODE

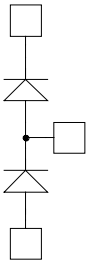


V_{RRM} (V)	FRED Type	IF(A) $T_c=80^\circ\text{C}$	VF(V) $T_j=25^\circ\text{C}$	Package Style	Part Number
200	FRED	500	1.1	LP4	APTDF500U20G
400	FRED	500	1.5	LP4	APTDF500U40G
600	FRED	450	1.8	LP4	APTDF450U60G
1000	FRED	430	2.3	LP4	APTDF430U100G
1200	FRED	400	2.5	LP4	APTDF400U120G



LP4

PHASE LEG

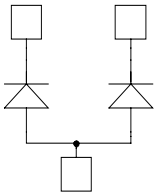


V_{RRM} (V)	FRED Type	IF(A) $T_c=80^\circ\text{C}$	VF(V) $T_j=25^\circ\text{C}$	Package Style	Part Number
200	FRED	400	1.0	SP6	APTDF400AK20G
600	FRED	400	1.6	SP6	APTDF400AK60G
1000	FRED	400	2.1	SP6	APTDF400AK100G
1200	FRED	400	2.4	SP6	APTDF400AK120G
1700	FRED	400	2.2	SP6	APTDF400AK170G



SP4

DUAL COMMON ANODE

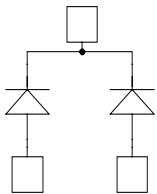


V_{RRM} (V)	FRED Type	IF(A) $T_c=80^\circ\text{C}$	VF(V) $T_j=25^\circ\text{C}$	Package Style	Part Number
200	FRED	400	1.0	SP6	APTDF400AA20G
600	FRED	400	1.6	SP6	APTDF400AA60G
1000	FRED	400	2.1	SP6	APTDF400AA100G
1200	FRED	400	2.4	SP6	APTDF400AA120G
1700	FRED	400	2.2	SP6	APTDF400AA170G



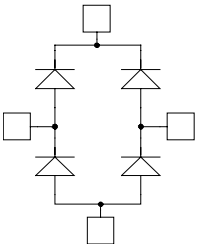
SP6

DUAL COMMON CATHODE



V_{RRM} (V)	FRED Type	IF(A) $T_c=80^\circ\text{C}$	VF(V) $T_j=25^\circ\text{C}$	Package Style	Part Number
200	FRED	400	1.0	SP6	APTDF400KK20G
600	FRED	400	1.6	SP6	APTDF400KK60G
1000	FRED	400	2.1	SP6	APTDF400KK100G
1200	FRED	400	2.4	SP6	APTDF400KK120G
1700	FRED	400	2.2	SP6	APTDF400KK170G

FULL BRIDGE

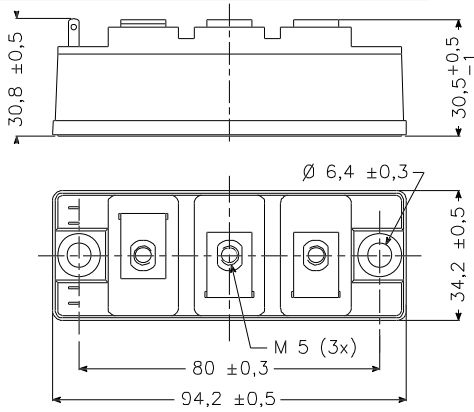


V_{RRM} (V)	FRED Type	IF(A) $T_c=80^\circ\text{C}$	VF(V) $T_j=25^\circ\text{C}$	Package Style	Part Number
200	FRED	100	1.0	SP4	APTDF100H20G
		200	1.0	SP6	APTDF200H20G
600	FRED	100	1.6	SP4	APTDF100H60G
		200	1.6	SP6	APTDF200H60G
1000	FRED	100	2.1	SP4	APTDF100H100G
		200	2.1	SP6	APTDF200H100G
1200	FRED	100	2.4	SP4	APTDF100H120G
		200	2.4	SP6	APTDF200H120G
1700	FRED	100	2.2	SP4	APTDF100H170G
		200	2.2	SP6	APTDF200H170G

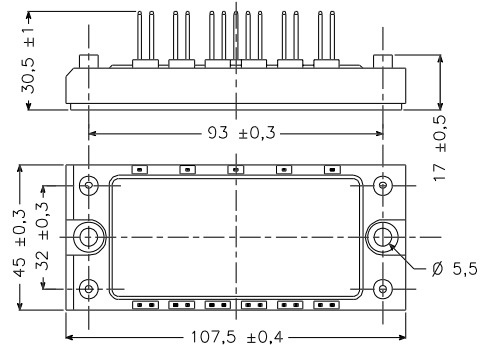
Power Module Outlines

Pin out location depends on the module configuration. Please refer to the product datasheet for pins assignment. All dimensions in millimeter

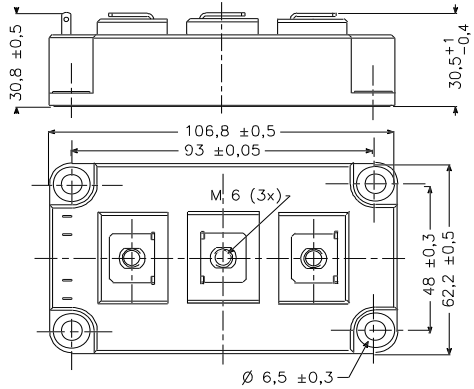
D1



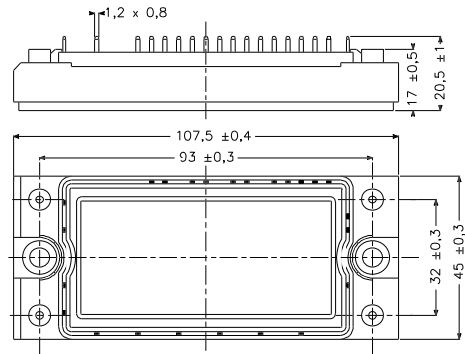
E2



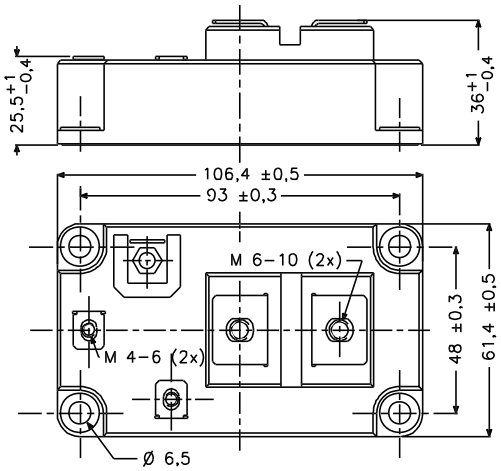
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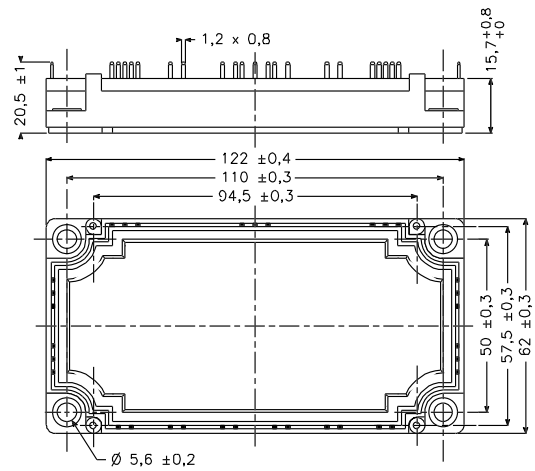
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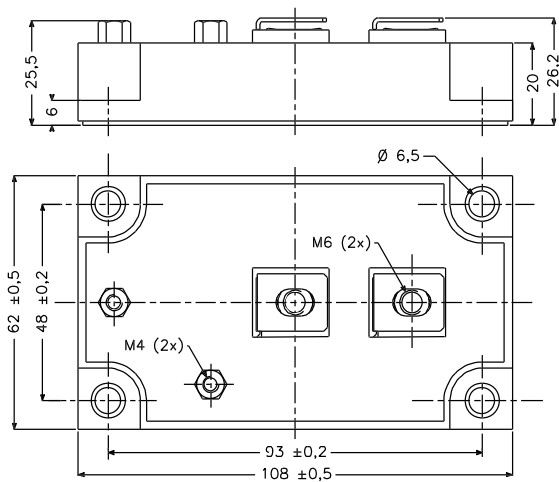
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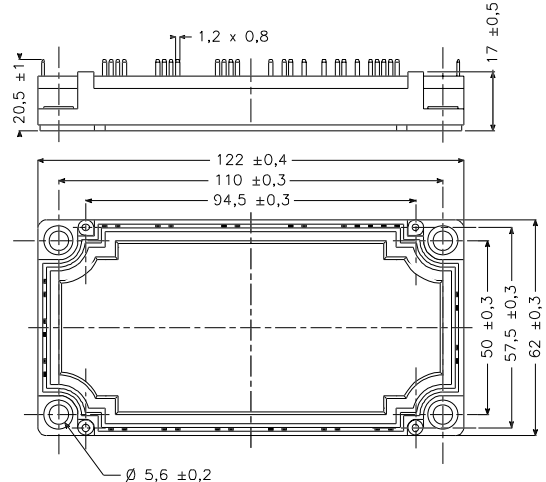
E3



J3

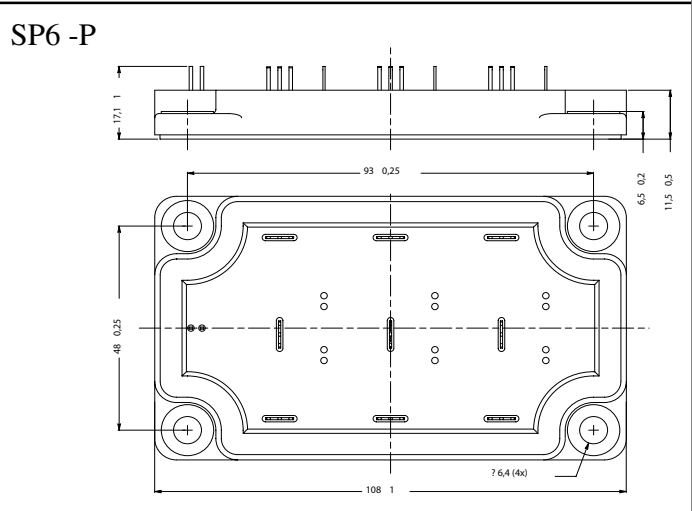
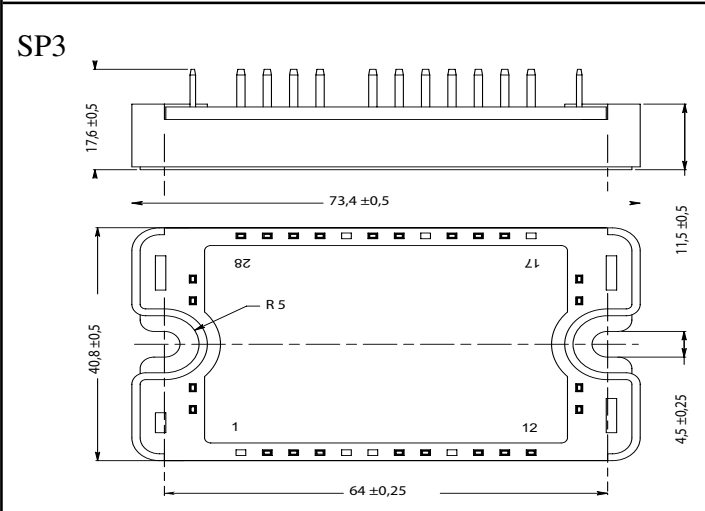
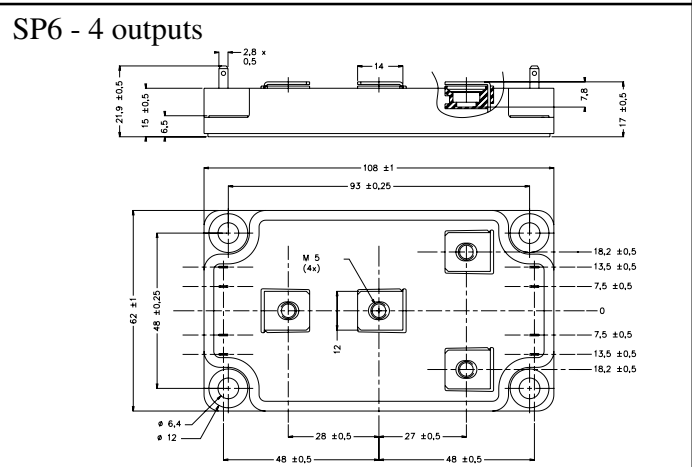
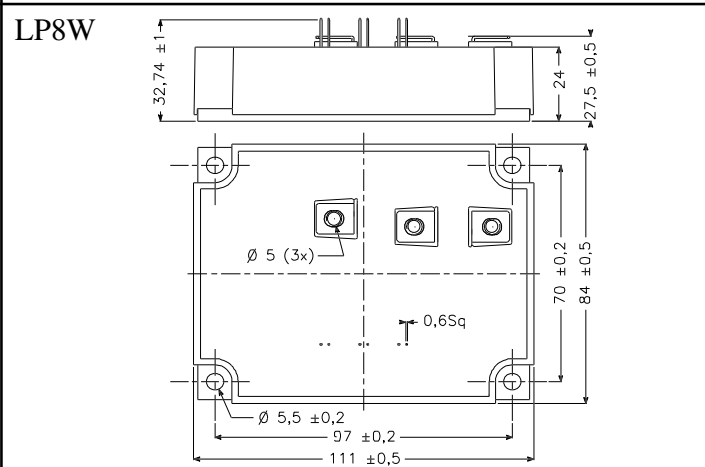
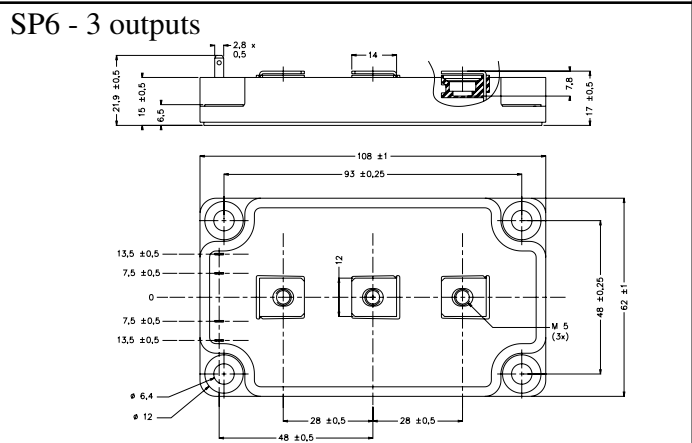
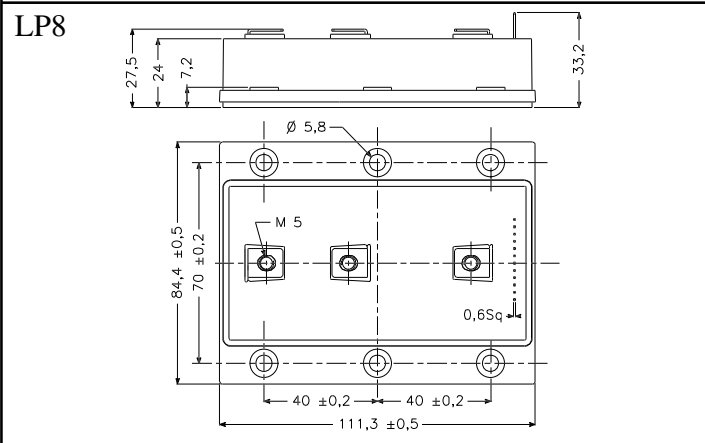
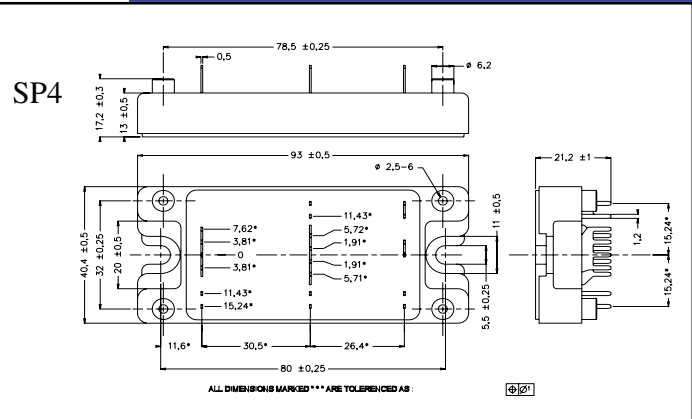
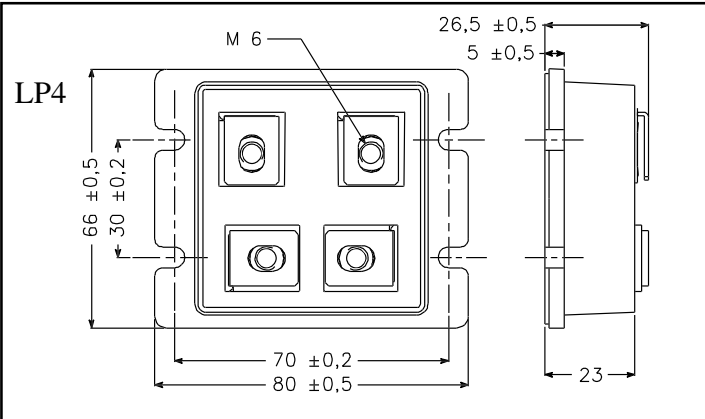


P3



Pin out location depends on the module configuration. Please refer to the product datasheet for pins assignment. All dimensions in millimeter

Power Module Outlines





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