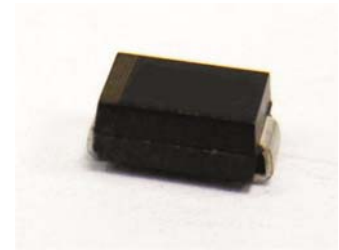




Major ratings and characteristics

Characteristics	Values	Units
$I_{F(AV)}$ Rectangular Waveform	3	A
V_{RRM}	40	V
$V_F @ 3 A, T_J=125^{\circ}C$	0.44	V, typ.
T_J Operating Junction Temperature	-65 to +150	$^{\circ}C$

DO-214AC (SMA)



Features

- * Low Forward Voltage Drop
- * Reliable High Temperature Operation
- * Softest, fast switching capability
- * 150 $^{\circ}C$ Operating Junction Temperature
- * Lead Free Finish, RoHS Compliant



Typical Applications

Device optimized for ultra-low forward voltage drop to maximize efficiency in Power Supply applications

Mechanical

- * Case: DO-214AC(SMA)
- * Molder Plastic: UL Flammability Classification Rating 94V-0
- * Device Weight : 0.002 ounces (0.064grams)

Maximum Ratings Characteristics ($T_A = 25^{\circ}C$ unless otherwise specified)

Parameter	Symbol	Values	Units
DC Blocking Voltage	V_{RM}	40	Volts
Working Peak Reverse Voltage	V_{RWM}		
Peak Repetitive Reverse Voltage	V_{RRM}		
Average Rectified Forward Current (Rated VR-20Khz Square Wave) - 50% duty cycle	I_o	3	Amps
Peak Forward Surge Current - 1/2 60hz	I_{FSM}	50	Amps
Peak Repetitive Reverse Surge Current (2uS-1Khz)	I_{RRM}	&	Amps
Typical Thermal Resistance	$R\theta_{JL}$	20	$^{\circ}C / W$
Maximum Rate of Voltage Change (at Rated V_R)	dv/dt	10000	V/uS
Operating Junction Temperature	T_J	- 65 to +150	$^{\circ}C$
Storage Junction Temperature	T_{STG}	- 65 to +150	



Electrical Characteristics - (per leg) ($T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Test Conditions	Symbol	Typ.	Max.	Units
Instantaneous Forward Voltage	IF = 3 A	$T_J = 25^\circ\text{C}$	----	0.47	Volts
			$T_J = 125^\circ\text{C}$	0.44	
Instantaneous Reverse Current	At V_{RM}	$T_J = 25^\circ\text{C}$	----	500	μA
			$T_J = 125^\circ\text{C}$	----	25

* Pulse width < 300 μs , Duty cycle < 2%

Patings and Characteristics Curves ($T_A = 25^\circ\text{C}$ unless otherwise specified)

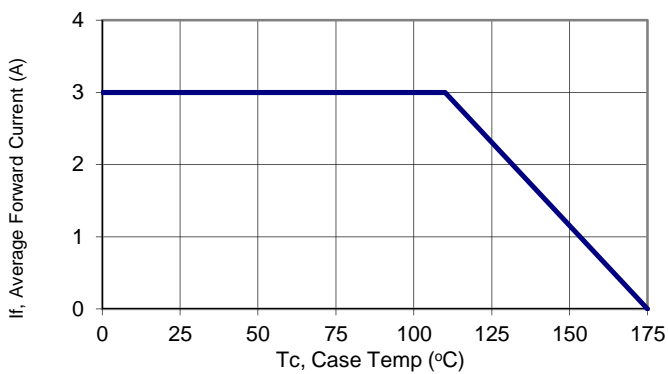


Figure 1: Current Derating, Case

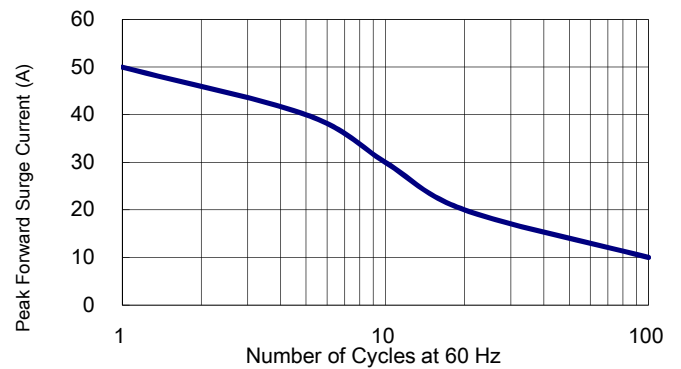


Figure 2: Maximum Repetitive Surge Current

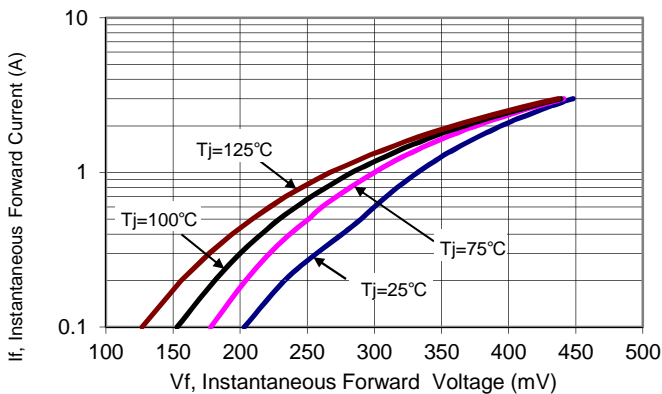


Figure 3: Typical Reverse Current

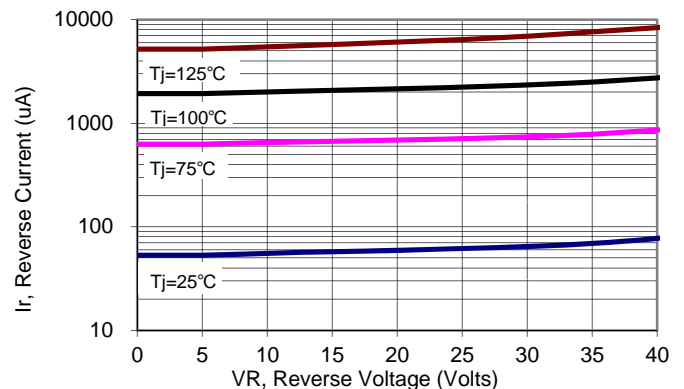


Figure 4: Typical Forward Voltage

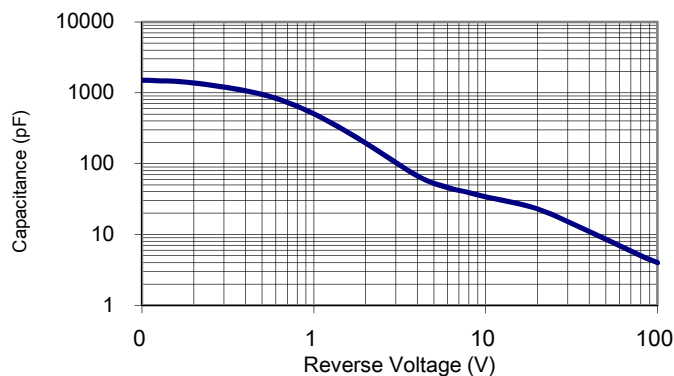
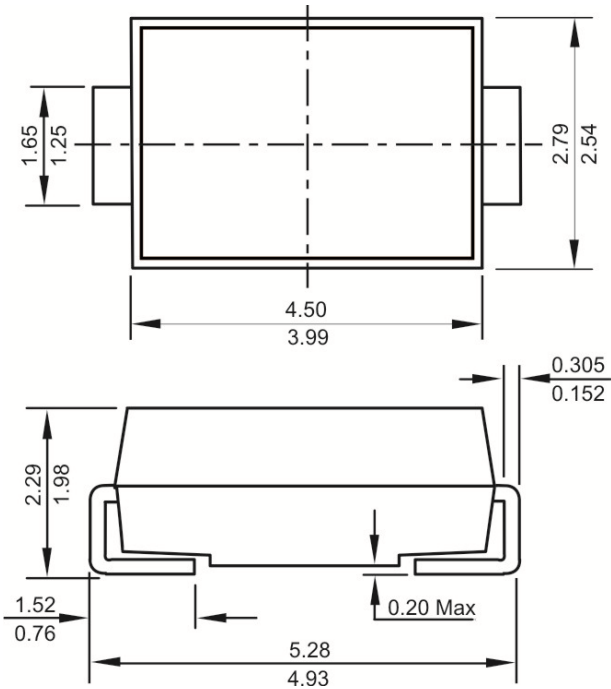


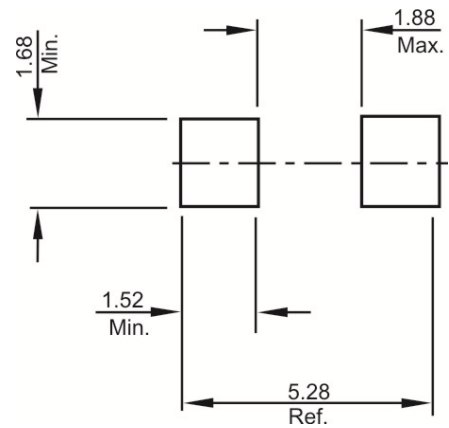
Figure 5: Typical Junction Capacitance



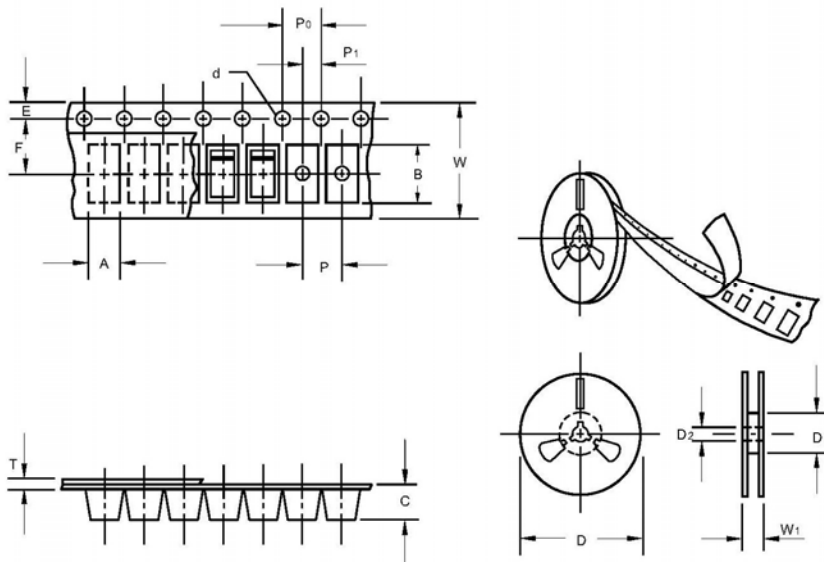
Package and Suggested Mounting pad Outline Dimensions millimeters



Mounting Pad Layout



Packing and Ordering information



Item	Symbol	Dimension
Carrier width	A	2.79±0.15
Carrier length	B	5.33±0.15
Carrier depth	C	2.36±0.15
Sprocket hole	d	1.55±0.10
Reel outside diameter	D	330.0±1.0
Reel inner diameter	D ₁	75±1.0
Feed hole diameter	D ₂	13.5±1.0
Stocket hole position	E	1.75±0.10
Punch hole position	F	5.5±0.05
Punch hole pitch	P	4.0±0.10
Sprocket hole pitch	P ₀	4.0±0.10
Embossment center	P ₁	2.0±0.10
Total tape thickness	T	0.3±0.10
Tape width	W	12.0±0.15
Reel width	W ₁	18.1±1.5

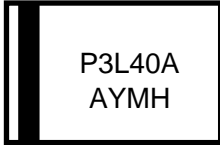
Ordering information

Part Number	Package	Base Quantity	Delivery mode
P3L40A	DO-214AC (SMA)	5000	13" diameter plastic tape and reel

Note: For Halogen Free molding compound, add "H" suffix to part number above.



Marking information



P3L40A = Product Type Marking Code

A = Assembly code

YM = Date Code

Y = Last one digits of year

M = Month Code

H = Halogen Free (N/A = common molding compound)