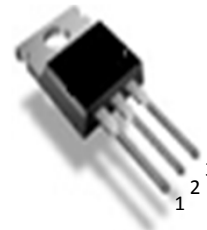




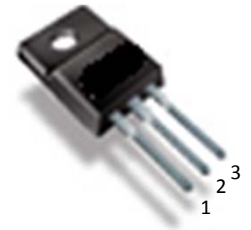
Major ratings and characteristics

Characteristics	Values	Units
$I_{F(AV)}$ Rectangular Waveform	10 × 2	A
V_{RRM}	300	V
$V_F@ 10 A, T_J=125^{\circ}C$	0.71	V , typ.
T_J Operating Junction Temperature	-65 to +175	$^{\circ}C$

TO-220AB



ITO-220AB

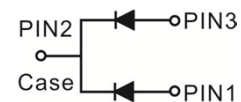


Features

- * Ultra-Low Forward Voltage Drop
- * Reliable High Temperature Operation
- * Softest, fast switching capability
- * 175 $^{\circ}C$ 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

- * Molded Plastic Low profile TO-220AB / ITO-220AB
- * Device Weight : 0.07 ounces (1.96grams) - TO-220AB
0.06 ounces (1.74grams) - ITO-220AB
- * Mounting Torque : 10 in-lbs maximum.

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

Parameter	Symbol		Units
DC Blocking Voltage	V_{RM}		
Working Peak Reverse Voltage	V_{RWM}	300	Volts
Peak Repetitive Reverse Voltage	V_{RRM}		
Average Rectified Forward Current (Rated VR-20Khz Square Wave) - 50% duty cycle	I_o	20	Amps
Peak Forward Surge Current - 1/2 60hz	I_{FSM}	180	Amps
Peak Repetitive Reverse Surge Current (2uS-1Khz)	I_{RRM}	1	Amps
Typical Thermal Resistance (per leg)	$R\theta_{Jc}$		$^{\circ}C / W$
Package = TO-220AB		2	
ITO-220AB		4	
Isolation voltage (ITO-220 only)	V_{AC}	1500	V
Maximum Rate of Voltage Change (at Rated V_R)	dv/dt	10000	V/uS
Operating Junction Temperature	T_J	- 65 to +175	$^{\circ}C$
Storage Junction Temperature	T_{STG}	- 65 to +175	



Electrical Characteristics - (per leg) (T_A = 25°C unless otherwise specified)

Parameter	Test Conditions	Symbol	Typ.	Max.	Units
Instantaneous Forward Voltage	IF = 10 A	V _F *	T _J = 25°C	0.89	Volts
			T _J = 125°C	0.74	
Instantaneous Reverse Current	At V _{RM}	IR	T _J = 25°C	200	uA
			T _J = 125°C	30	mA

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

Patings and Characteristics Curves (T_A = 25°C unless otherwise specified)

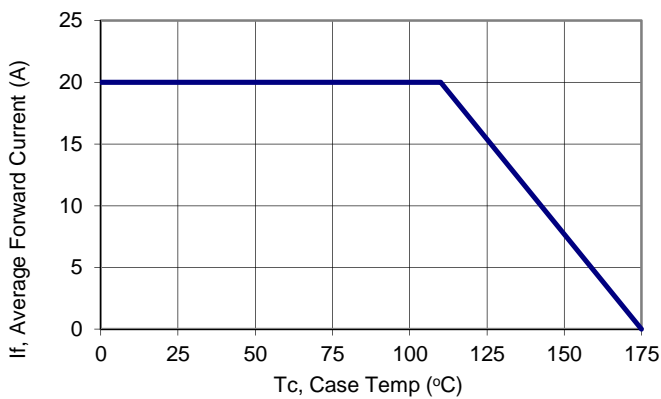


Figure 1: Current Derating, Case

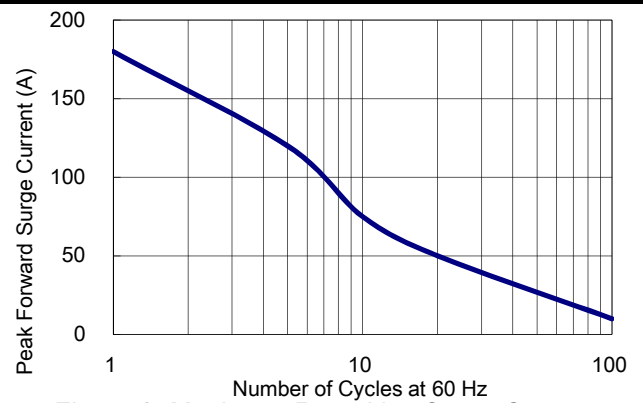


Figure 2: Maximum Repetitive Surge Current

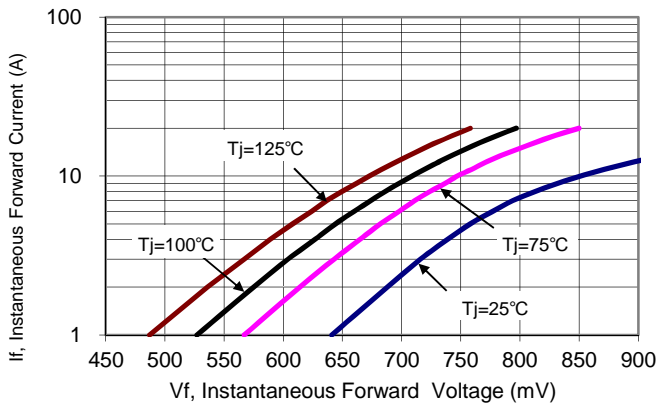


Figure 3: Typical Forward Voltage

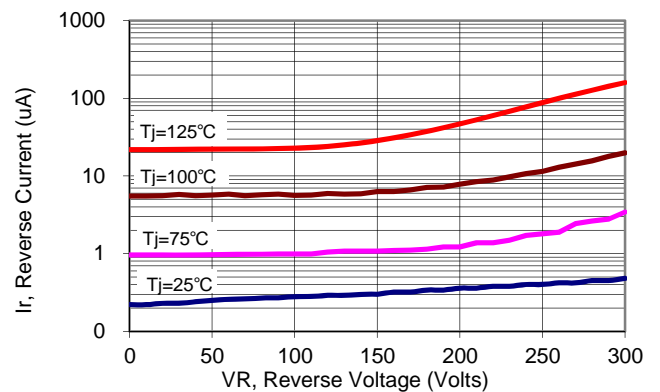


Figure 4: Typical Reverse Current

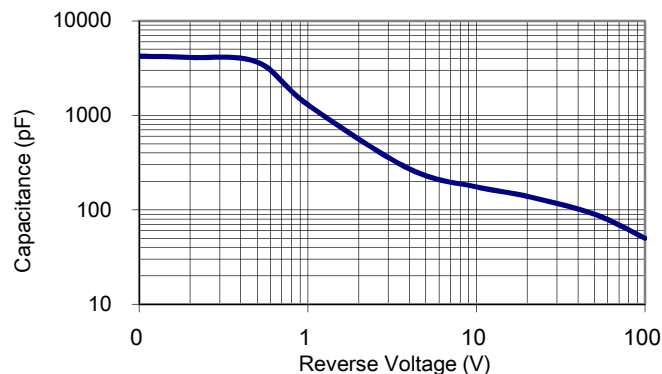


Figure 5: Typical Junction Capacitance

