

Super Barrier Rectifier ™

Using state-of-the-art SBR IC process technology, the following features are made possible in a single device:

Major ratings and characteristics

Characteristics	Values	Units
I _{F(AV)} Rectangular Waveform	60	Α
V_{RRM}	100	٧
V _F @30A, Tj=125 ^O C	0.71	V, typ
Tj (operating/storage)	-65 to 175	°C

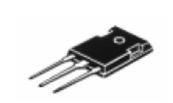
ELECTRICAL:

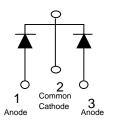
- * Low Forward Voltage Drop
- * Reliable High Temperature Operation
- * Super Barrier Design
- * Softest, fast switching capability
- * 175°C Operating Junction Temperature

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

MECHANICAL:

* Molded Plastic TO-3P package





Maximum Ratings and Electrical Cha	racteristic	cs			
(at 25°C unless otherwise specified)					
	SYMBOL			UNITS	
DC Blocking Voltage Working Peak Reverse Voltage Peak Repetitive Reverse Voltage	$egin{array}{c} egin{array}{c} egin{array}{c} V_{RM} \ V_{RRM} \end{array}$	100		Volts	
Average Rectified Forward Current (Rated V _R -20Khz Square Wave) - 50% duty cycle	I _o	60		Amps	
Peak Forward Surge Current - 1/2 60hz	I _{FSM}	350		Amps	
Peak Repetitive Reverse Surge Current (2uS-1Khz)	I _{RRM}	3		Amps	
Instantaneous Forward Voltage (per leg) $I_F = 30A$; $T_J = 25^{\circ}C$ $I_F = 30A$; $T_J = 125^{\circ}C$	V _F	Typ 	Max 0.87 0.73	Volts	
Maximum Instantaneous Reverse Current at Rated V_{RM} $T_{\text{J}} = 25^{\circ}\text{C}$ $T_{\text{J}} = 125^{\circ}\text{C}$	I _R *	Тур 	Max 100 10	uA mA	
Maximum Rate of Voltage Change (at Rated V_R)	dv/dt	10,000		V/uS	
Maximum Thermal Resistance JC (per leg)	$R\theta_{JC}$	2		°C/W	
Operating and Storage Junction Temperature	T _J	-65 to +175		°C	

Pulse width < 300 uS, Duty cycle < 2%

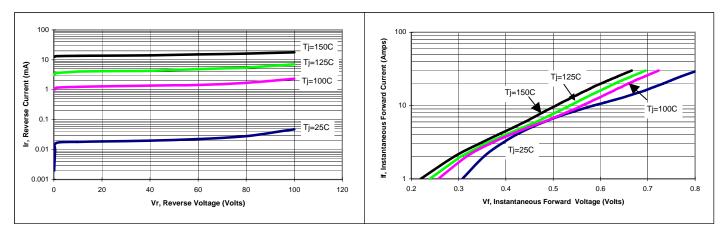


Figure 1: Typical Reverse Current (per leg)

Figure 2: Typical Forward Voltage (per leg)

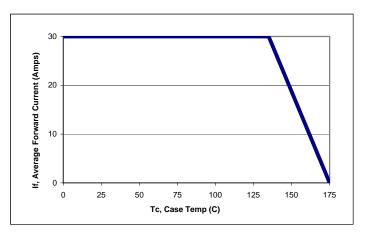


Figure 3: Current Derating, Case (per leg)

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