Schottky Barrier Rectifier

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RoHS Compliant



Description

Using the schottky barrier principle with a refractory metal capable of high temperature operation metal. The proprietary barrier technology allows for reliable operation up to 175°C junction temperature. Typical application are in switching mode power supplies such as adaptors, DC/DC converters, free- wheeling and polarity protection diodes.

Features

- Low forward voltage
- Low switching noise
- High current capacity
- Guarantee reverse avalanche
- Guard-ring for stress protection
- Low power loss and high efficiency
- 175°C operating junction temperature
- Low stored charge majority carrier conduction
- Plastic material used carries Underwriters Laboratory
- Flammability classification 94V-0

Specifications

Reverse Voltage : 100 Volts Forward Current : 20 Amperes

Maximum Ratings

Characteristic	Symbol	Values	Units	
Peak Repetitive Reverse Voltage	Vrrm			
Working Peak Reverse Voltage	Vrwm	100	v	
DC Blocking Voltage	g Voltage VR			
RMS Reverse Voltage	Vr(rms)	70		
Average Rectifier Forward Current	IF(N))	10		
Total Device (Rated V _R), T _c = 125°C	IF(AV)	20		
Peak Repetitive Forward Current	lfм	20	A	
(Rate VR, Square Wave, 20kHz)				
Non-Repetitive Peak Surge Current	IFSM 150			
(Surge applied at rate load conditions half-ware, single phase, 60Hz)	IFOM	100		
Operating and Storage Junction Temperature Range	TJ, TSTG	-65 to +175	°C	

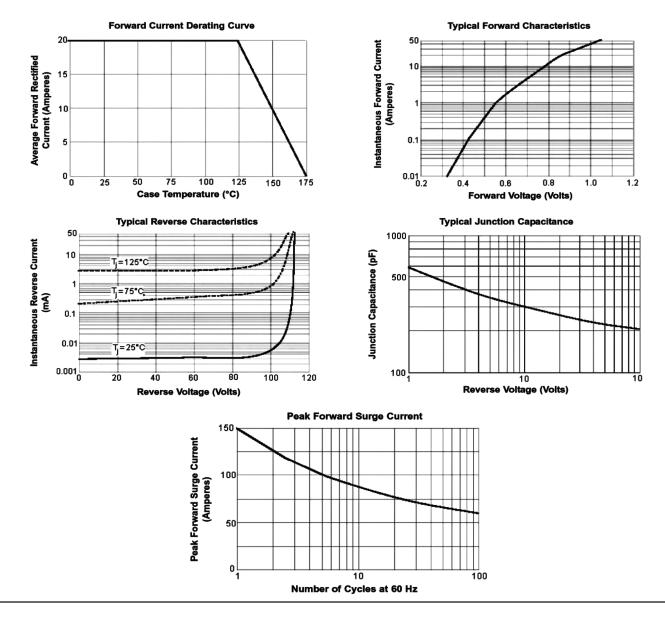
	Typical Thermal Resistance junction to case	Rejc	3.4	°C/W
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Electrical Characteristics

Characteristic	Symbol	Values	Units
Maximum Instantaneous Forward Voltage (IF = 10 Amperes Tc = 25°C) (IF = 10 Amperes Tc = 125°C)	VF	0.85 0.76	V
Maximum Instantaneous Reverse Current (Rated DC Voltage, Tc = 25°C) (Rated DC Voltage, Tc = 125°C)	lr	0.01 10	mA

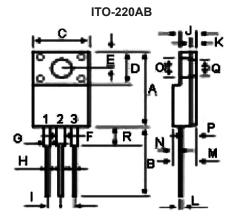


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Diagram



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Dim.	Min.	Max.		Dim.	Min.	Max.
Α	15.05	15.15		J	3	3.2
В	13.35	13.45		K	1.1	1.2
С	10	10.1		L	0.55	0.65
D	6.55	6.65		М	4.4	4.6
E	2.65	2.75		N	115	1.25
F	1.55	1.65		0	3.35	3.45
G	1.15	1.25		Р	2.65	2.75
Н	0.55	0.65		Q	3.15	3.25
I	2.5	2.6		R	3.6	3.8

Common Cathode



Dimensions : Millimetres

Part Number Table

Description	Part Number	
Schottky Barrier Rectifier, 100V	MBRF20100C	

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