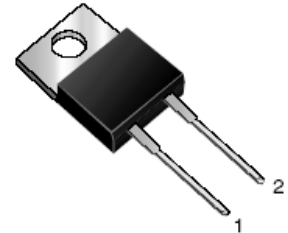


16A Schottky Barrier Rectifiers

Features

- Low forward voltage
- Low switching noise
- High current capacity
- Guarantee reverse avalanche
- Guard-ring for stress protection
- Low power loss & high efficiency
- 150° C operating junction temperature
- Low stored charge majority carrier conduction



TO-220AC

Mechanical Data

Case:	JEDEC TO-220AC, molded plastic body
Epoxy:	Plastic package has UL flammability classification 94V-0
Terminals:	Matte tin plated leads, solderable per J-STD-002B and JESD22-B102D
Polarity	As marked
Mounting Position:	Any
Mounting Torque:	10 in-lbs maximum
Weight:	0.08 ounces, 2.24 grams

Maximum Ratings ($T_{Ambient}=25^{\circ}C$ unless noted otherwise)

Symbol	Description	MBR1630	MBR1635	MBR1640	MBR1645	MBR1650	MBR1660	Unit	Conditions
VRRM	Maximum Repetitive Peak Reverse Voltage	30	35	40	45	50	60	V	
VRWM	Maximum Working Peak Reverse Voltage	30	35	40	45	50	60	V	
VR	Maximum DC Blocking Voltage	30	35	40	45	50	60	V	
VR(RMS)	RMS Reverse Voltage	21	25	28	32	35	42	V	
IF(AV)	Maximum Average Forward Rectified Current	16						A	
IFM	Peak Repetitive Forward Current	16						A	Rated VR, square wave, 20KHZ
IFSM	Non-Repetitive Peak Forward Surge Current	250						A	Surge applied at rate load conditions half-wave, single phase, 60HZ
TJ, TSTG	Operating and Storage Junction Temperature Range	-65 to +150						° C	

16A Schottky Barrier Rectifiers

MBR1630 - MBR1660

Electrical Characteristics ($T_{Ambient}=25^{\circ}C$ unless noted otherwise)

Symbol	Description	MBR1630	MBR1635	MBR1640	MBR1645	MBR1650	MBR1660	Unit	Conditions
V_F	Maximum Instantaneous Forward Voltage per Diode	0.55				0.65		V	IF=16A, TC=25 °C
		0.48				0.58			IF=16A, TC=100 °C
I_R	Maximum Instantaneous Reverse Current	0.5						mA	Rated DC Voltage, TC=25 °C
		30							Rated DC Voltage, TC=125°C
$R_{\theta JC}$	Typical Thermal Resistance Junction to Case	3.0						° C/W	

Typical Characteristics Curves

Fig.1- Forward Current Derating Curve

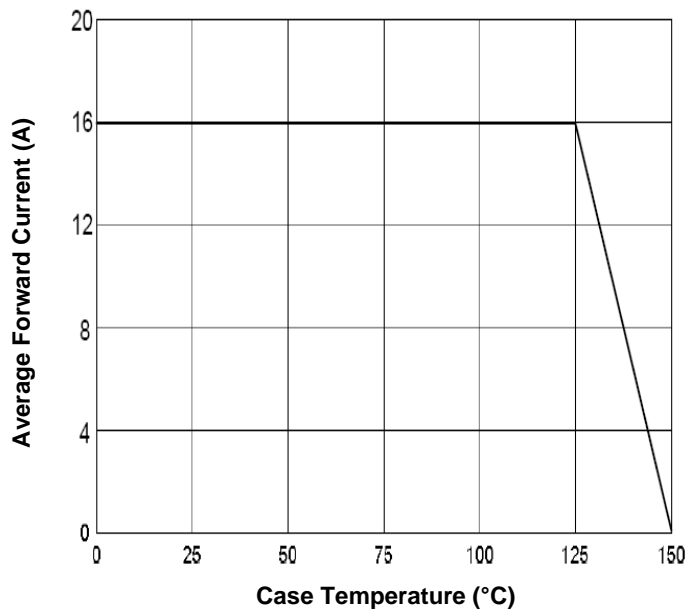
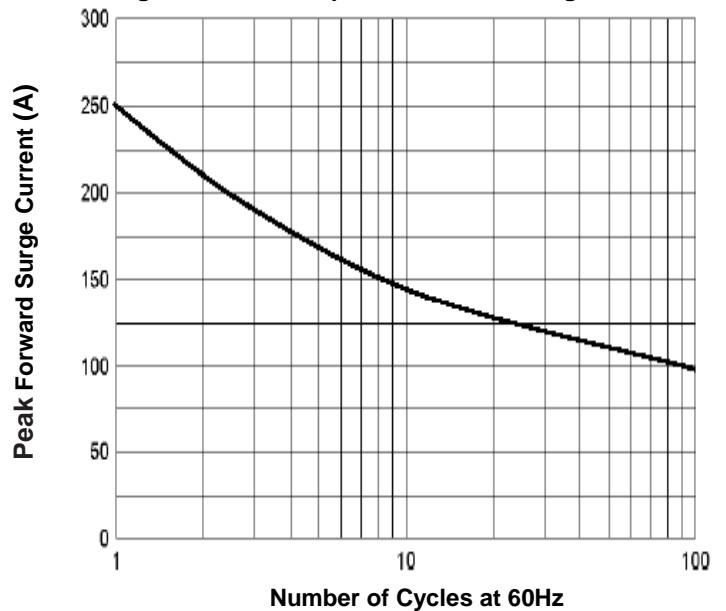


Fig.2- Max. Non-Repetitive Forward Surge Current



16A Schottky Barrier Rectifiers

MBR1630 - MBR1660

Fig.3- Typical Instantaneous Forward Characteristics

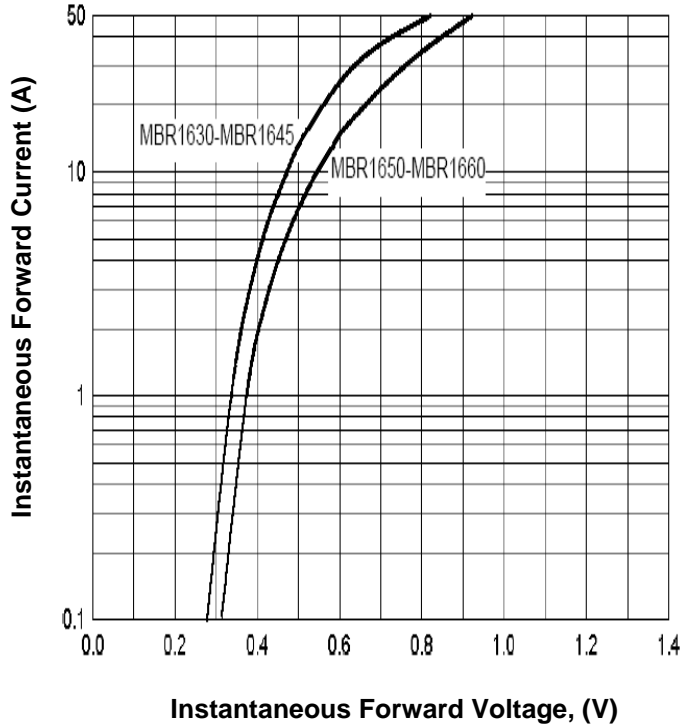


Fig.4- Typical Reverse Characteristics

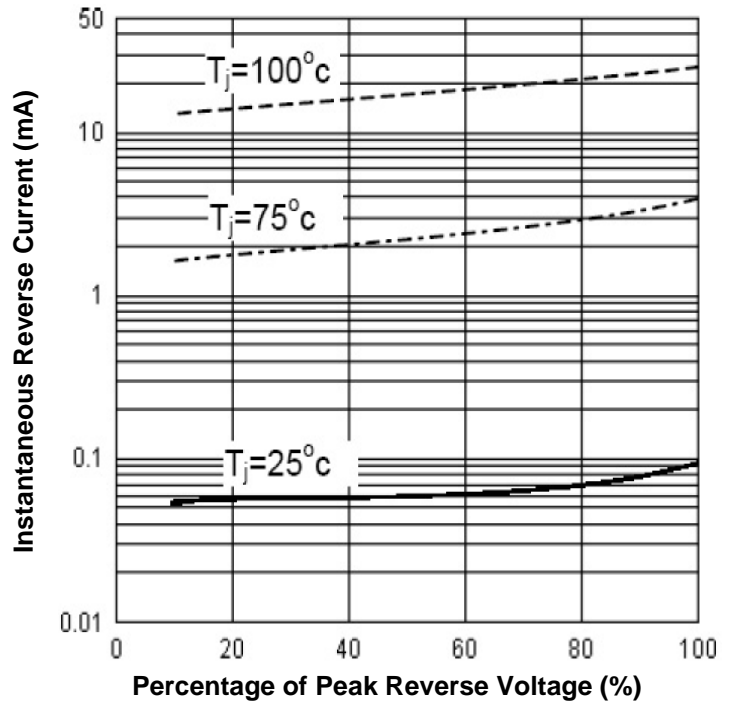
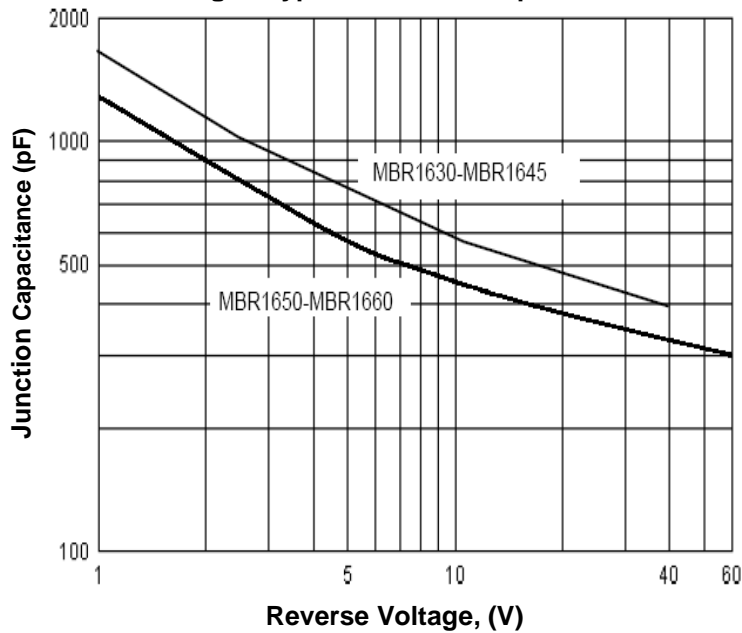


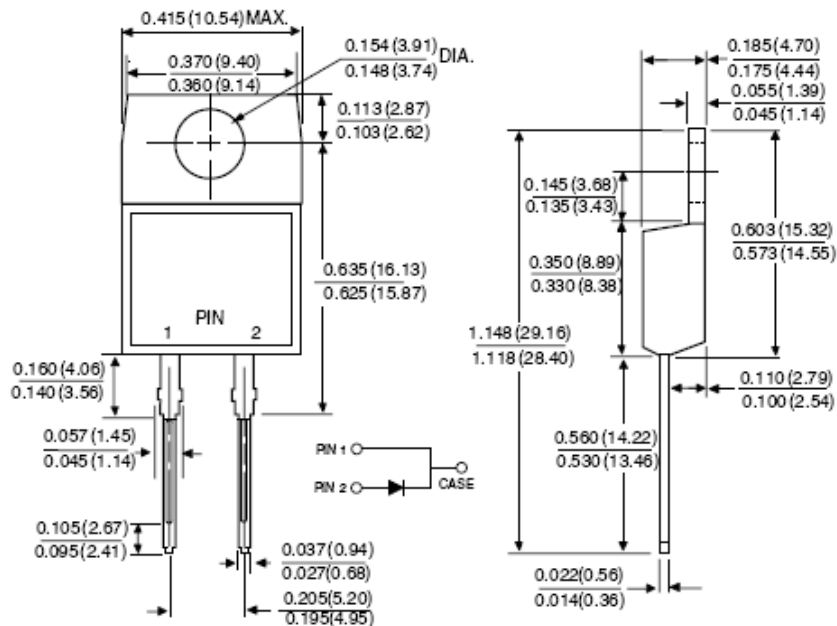
Fig.5- Typical Junction Capacitance



16A Schottky Barrier Rectifiers

MBR1630 - MBR1660

Dimensions in inches (mm)



TO-220AC

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