

MBR40045CTS

Silicon Power Schottky Diode

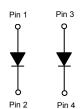
 $V_{RRM} = 45 V$ $I_F = 400 A$

Features

• High Surge Capability

Package





SOT - 227

Maximum Ratings at T_j = 125 °C, unless otherwise specified

Parameter	Symbol	Conditions	Values	Unit
Repetitive peak reverse voltage	V_{RRM}		45	V
RMS reverse voltage	V_{RMS}		32	V
DC blocking voltage	V_{DC}		45	V
Continuous forward current	l _F	T _C ≤ 85 °C	400	Α
Operating temperature	T _j		-40 to 175	°C
Storage temperature	T _{stg}		-40 to 175	°C

Electrical Characteristics at T_j = 125 °C, unless otherwise specified (Per Leg)

Parameter	Symbol	Conditions	Values		Unit	
Farameter	Syllibol	Conditions	min. typ. m	max.	Oilit	
Diode forward voltage	V_{F}	$I_F = 200 \text{ A}, T_j = 25 ^{\circ}\text{C}$		1.1	1.2	V
		$I_F = 200 \text{ A}, T_j = 125 ^{\circ}\text{C}$		1		
Reverse current	I_R	$V_R = 36 \text{ V}, T_j = 25 ^{\circ}\text{C}$		1.2	5	μΑ
		$V_R = 36 \text{ V}, T_j = 125 ^{\circ}\text{C}$		835	2500	
		$V_R = 1 \text{ V, } f = 1 \text{ MHz, } T_j = 25 ^{\circ}\text{C}$		4910		_
Total capacitance	С	$V_R = 20 \text{ V, f} = 1 \text{ MHz, T}_j = 25 ^{\circ}\text{C}$		1399		pF
		$V_R = 45 \text{ V}, f = 1 \text{ MHz}, T_i = 25 ^{\circ}\text{C}$		1032		

Thermal Characteristics

Thermal resistance, junction - case	R_{thJC}	2.16	°C/W

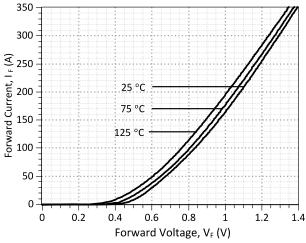


Figure 1: Typical Forward Characteristics(Per Leg)

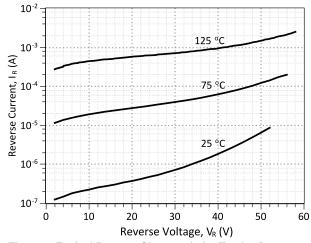


Figure 2: Typical Reverse Characteristics(Per Leg)



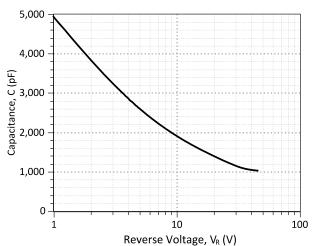
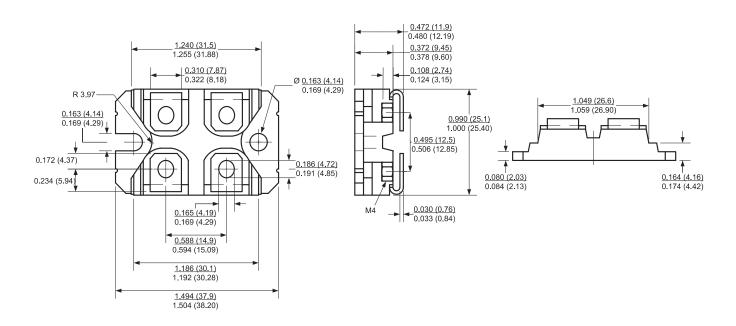


Figure 3: Typical Junction Capacitance vs Reverse Voltage Characteristics(Per Leg)

Package Dimensions:

SOT-227

PACKAGE OUTLINE



NOTE

- 1. CONTROLLED DIMENSION IS INCH. DIMENSION IN BRACKET IS MILLIMETER.
- 2. DIMENSIONS DO NOT INCLUDE END FLASH, MOLD FLASH, MATERIAL PROTRUSIONS



Revision History					
Date	Revision	Comments	Supersedes		
2012/03/12	0	Initial release			

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