MBR40045CTS

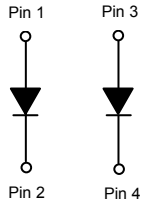
Silicon Power Schottky Diode

V_{RRM}	=	45 V
I_F	=	400 A

Features

- High Surge Capability

Package



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Maximum Ratings at T_j = 125 ℃, 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	I_F	$T_C \leq 85$ °C	400	A
Operating temperature	T_j		-40 to 175	°C
Storage temperature	T_{stg}		-40 to 175	°C

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

Parameter	Symbol	Conditions	Values			Unit
			min.	typ.	max.	
Diode forward voltage	V_F	I_F = 200 A, T_j = 25 °C I_F = 200 A, T_j = 125 °C		1.1 1	1.2	V
Reverse current	I_R	V_R = 36 V, T_j = 25 °C V_R = 36 V, T_j = 125 °C		1.2 835	5 2500	μA
Total capacitance	C	V_R = 1 V, f = 1 MHz, T_j = 25 °C V_R = 20 V, f = 1 MHz, T_j = 25 °C V_R = 45 V, f = 1 MHz, T_j = 25 °C		4910 1399 1032		pF

Thermal Characteristics

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

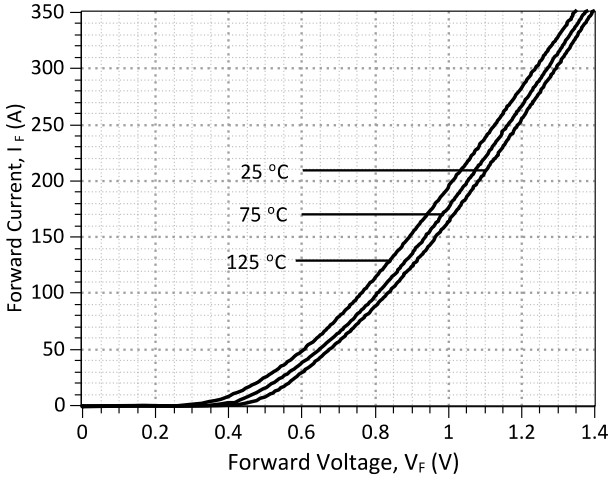


Figure 1: Typical Forward Characteristics(Per Leg)

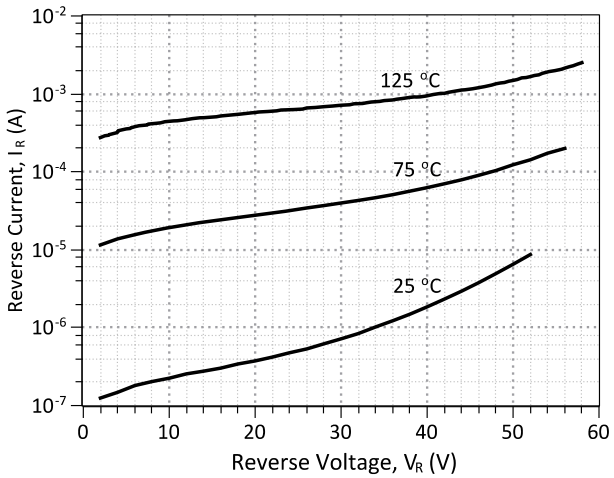


Figure 2: Typical Reverse Characteristics(Per Leg)

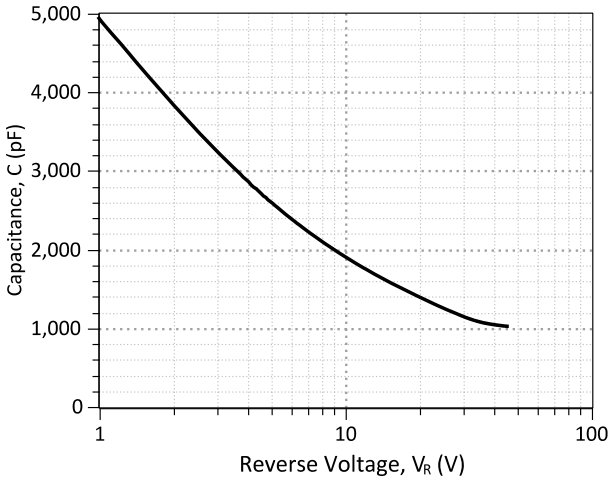
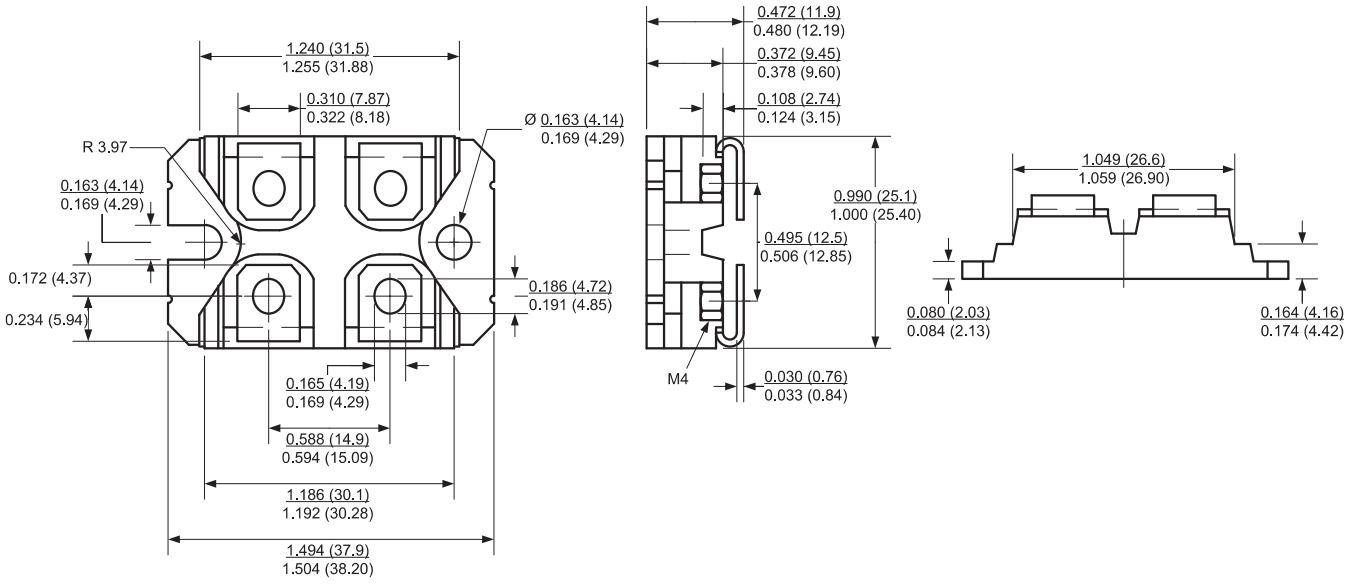


Figure 3: Typical Junction Capacitance vs Reverse Voltage Characteristics(Per Leg)

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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