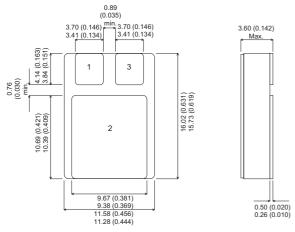




MECHANICAL DATA

Dimensions in mm (inches)



SCHOTTKY DIODE IN **HERMETIC CERAMIC** SURFACE MOUNT PACKAGE FOR HIGH RELIABILITY **APPLICATIONS**

PACKAGE SMD1 (TO-267AB)

Underside View

PAD 1 — Anode PAD 2 — Cathode PAD 3 — Not used

ABSOLUTE MAXIMUM RATINGS (T_C = 25°C unless otherwise stated)

V_{RRM}	Repetitive Peak Reverse Voltage	220V
I_{FAV}	Average Forward Current T _C = 25°C	12A
	$T_C = 90^{\circ}C$	9A
I _{FSM}	Maximum surge forward current $T_{vj} = 45$ °C; $t_p = 10$ ms (50Hz), sine	20A
T_{vj}	Virtual Junction Temperature	-55 + 175°C
T _{stg}	Storage Temperature Range	-55 + 150°C
P _{tot}	$T_C = 25^{\circ}C$	78W
R _{thjc}	Thermal Characteristics	3.2°C/W

ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise stated)

	Parameter	Test Conditions		Min.	Тур.	Max.	Unit
I _{R*}	Reverse Current	$T_{VJ} = 25^{\circ}C$	$V_R = V_{RRM}$			1.3	mA
		T _{VJ} = 125°C	$V_R = V_{RRM}$		1.3		
V _{F*}	Forward Voltage	I _F = 5A	T _{VJ} = 125°C		1.3		V
		I _F = 5A	T _{VJ} = 25°C	1.2		1.5	
CJ	Capacitance	V _R = 100V	T _{VJ} = 125°C	18			PF

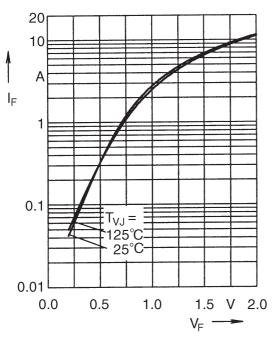
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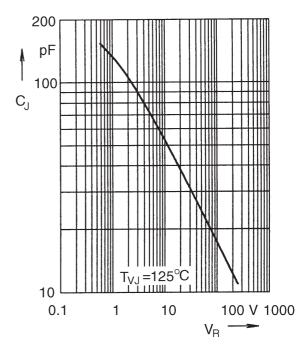


FIG. 1 TYP. FORWARD CHARCTERISTICS

FIG. 2 TYP. JUNCTION CAPACITY VERSUS **BLOCKING VOLTAGE**

NOTE:

Explanatory comparison for the basic operational behaviour of rectifier diodes and Gallium Arsenide Schottky diodes.

	Rectifier Diode	GaAs Schottky Didoe
Conduction forward characteristics turn off characteristics	by majority + minority carriers V _F (I _F) extraction of excess carriers causes temperature dependant	by majority carriers only V _F (I _F), See Fig 1 reverse current charges junction capacity C _j , see Fig 2;
turn on characteristics	reverse recovery (t _{rr} , I _{RM} , Q _{rr}) delayed saturation leads to V _{FR}	not temperature dependant no turn on overvoltage peak.

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