

TECHNICAL DATA
DATA SHEET 4044, REV. C.1

HERMETIC POWER SCHOTTKY RECTIFIER
Very Low Forward Voltage Drop

DESCRIPTION: A 45-VOLT, 120 AMP, POWER SCHOTTKY RECTIFIER IN A HERMETIC CERAMIC SMD-1 PACKAGE.

MAXIMUM RATINGS

ALL RATINGS ARE @ $T_c = 25\text{ }^\circ\text{C}$ UNLESS OTHERWISE SPECIFIED.

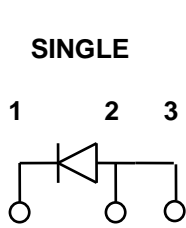
RATING	SYMBOL	MAX.	UNITS
PEAK INVERSE VOLTAGE	PIV	45	Volts
MAXIMUM DC OUTPUT CURRENT (With Cathode Maintained @ $T_c=100\text{ }^\circ\text{C}$)	I_o	120	Amps
MAXIMUM NONREPETITIVE FORWARD SURGE CURRENT ($t = 8.3\text{ms}$, Sine)	I_{FSM}	500	Amps
MAXIMUM JUNCTION CAPACITANCE ($V_r=5\text{V}$)	C_T	4800	pF
MAXIMUM THERMAL RESISTANCE	$R_{\theta JC}$	0.57	$^\circ\text{C/W}$
MAXIMUM OPERATING AND STORAGE TEMPERATURE RANGE	Top/Tstg	-65 to + 175	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS

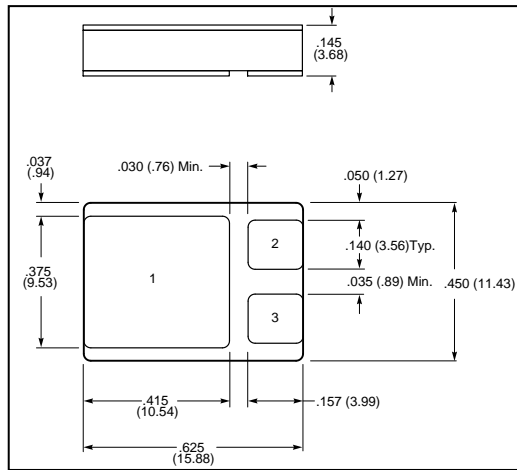
CHARACTERISTIC	SYMBOL	MAX.	UNITS
MAXIMUM FORWARD VOLTAGE DROP, Pulsed ($I_f = 45\text{ Amps}$) $T_J = 25\text{ }^\circ\text{C}$ $T_J = 125\text{ }^\circ\text{C}$	V_f	0.68 0.58	Volts
MAXIMUM FORWARD VOLTAGE DROP, Pulsed ($I_f = 120\text{ Amps}$) $T_J = 25\text{ }^\circ\text{C}$	V_f	0.90	Volts
MAXIMUM REVERSE CURRENT (I_r @ 45V PIV) $T_J = 25\text{ }^\circ\text{C}$ $T_J = 125\text{ }^\circ\text{C}$	I_r	2.4 90	mA

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MECHANICAL DIMENSIONS: In Inches / mm



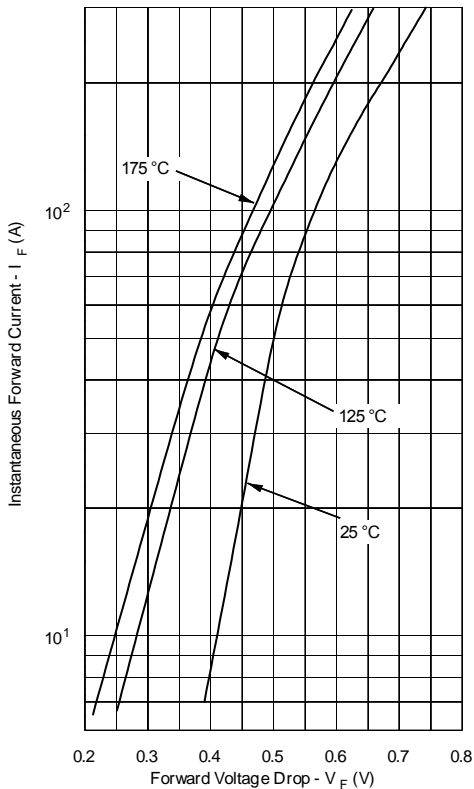
SMD-1

PINOUT TABLE

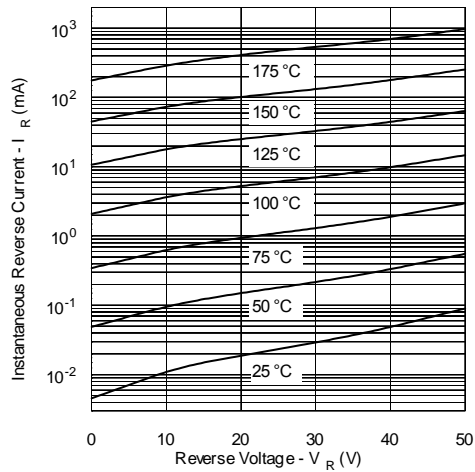
TYPE	PIN 1	PIN 2	PIN 3
SINGLE RECTIFIER	CATHODE	ANODE	ANODE

Note: The V_f curves shown are for the SD275SB45 un-packaged die only.

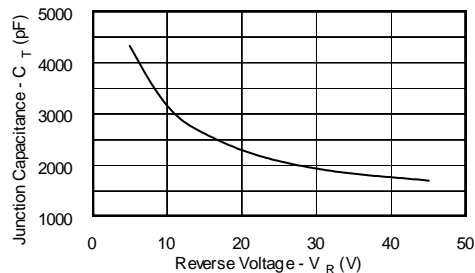
Typical Forward Characteristics



Typical Reverse Characteristics



Typical Junction Capacitance



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