



Surface Mount General Purpose Silicon Rectifiers

Reverse Voltage - 1000 V

Forward Current - 1 A

FEATURES

- For surface mounted applications
- Low profile package
- Glass Passivated Chip Junction
- Easy to pick and place
- Lead free in comply with EU RoHS 2011/65/EU directives

MECHANICAL DATA

- Case: SMA
- Terminals: Solderable per MIL-STD-750 , Method 2026
- Approx. Weight: 0.055g / 0.002oz

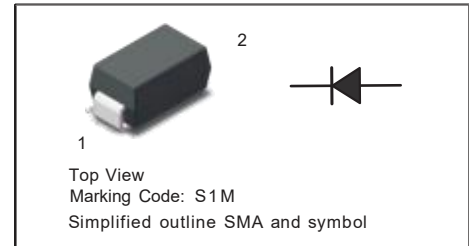
Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %.

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Parameter	Symbols	S1M	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	1000	V
Maximum RMS voltage	V_{RMS}	700	V
Maximum DC Blocking Voltage	V_{DC}	1000	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	1	A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	I_{FSM}	30	A
Maximum Instantaneous Forward Voltage at 1 A	V_F	1.1	V
Maximum DC Reverse Current $T_a = 25\text{ }^{\circ}\text{C}$ at Rated DC Blocking Voltage $T_a = 125\text{ }^{\circ}\text{C}$	I_R	5 50	μA
Typical Junction Capacitance (1)	C_j	15	pF
Typical Thermal Resistance (2)	$R_{\theta JA}$ $R_{\theta JC}$	75 25	$^{\circ}\text{C/W}$
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150	$^{\circ}\text{C}$

(1) Measured at 1 MHz and applied reverse voltage of 4 V D.C

(2) P.C.B. mounted with 8*8mm copper pad areas.



Fig.1 Forward Current Derating Curve

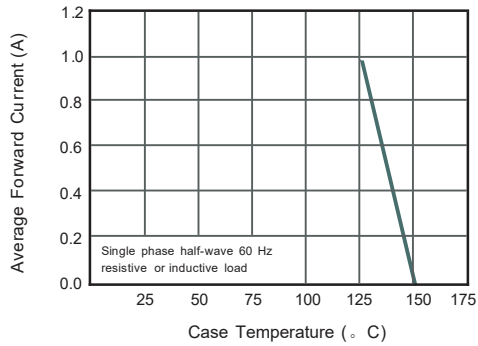


Fig.2 Typical Instantaneous Reverse Characteristics

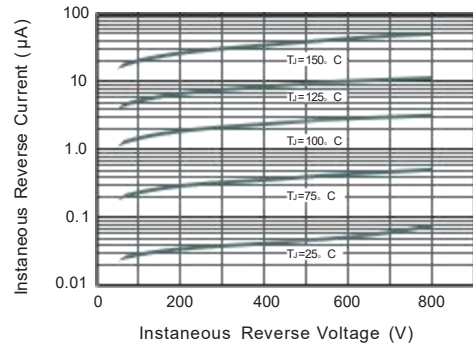


Fig.3 Typical Forward Characteristic

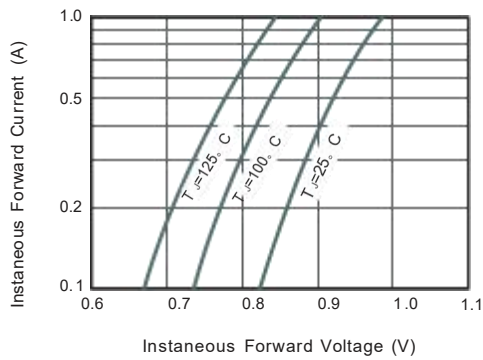


Fig.4 Typical Junction Capacitance

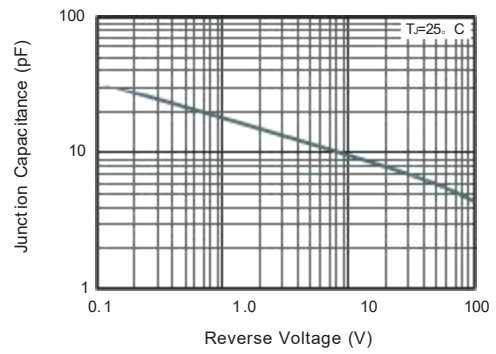


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

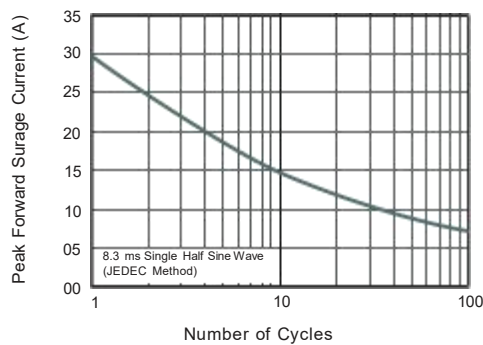
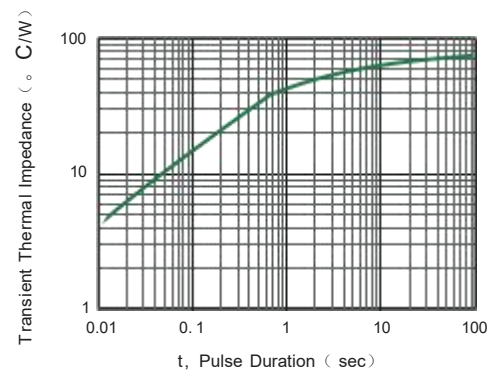


Fig.6- Typical Transient Thermal Impedance

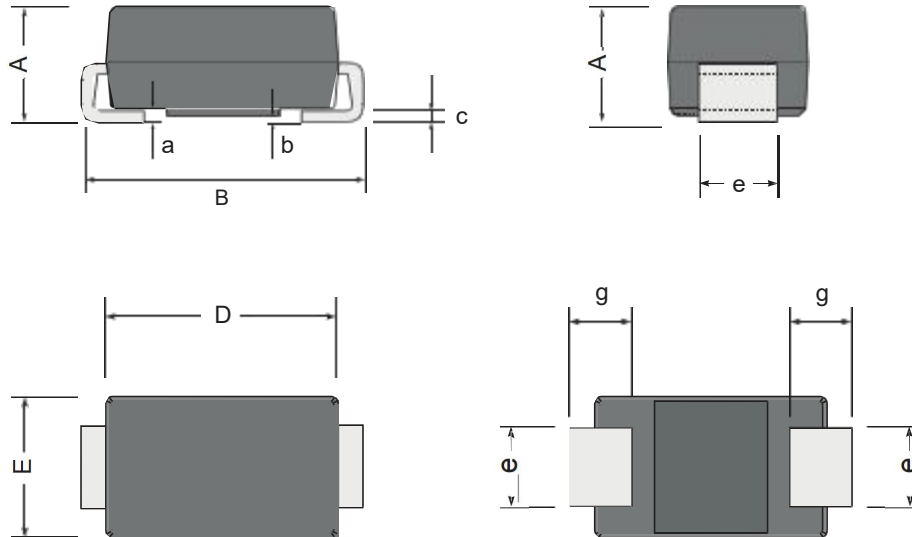




PACKAGE OUTLINE

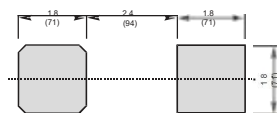
Plastic surface mounted package; 2 leads

SMA



UNIT		A	D	E	B	c	e	g	b	a
mm	max	2.2	4.5	2.8	5.3	0.31	1.6	1.5	0.2	0.3
	min	1.9	4.0	2.4	4.8	0.15	1.3	0.9	0.05	
mil	max	87	181	110	209	12	63	59	7.9	12
	min	75	157	94	189	6	51	35	2	

The recommended mounting pad size



Unit : mm
(mil)

Marking

Type number	Marking code
S1M	S1M