

Surface Mount General Purpos Silicon Rectifiers Reverse



Cathode o —> o **Anode**

Marking:S1J

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

- Package: SMA
- Lead: lead solderable per MIL-STD-202,method 208 guaranteed
- Polarity: Color band denotes cathode end

■ Maximum Ratings (Ta=25°C Unless otherwise specified)

Parameter	Symbols	S1J	Units
Maximum Repetitive Peak Reverse Voltage	VRRM	600	V
Maximum RMS voltage	VRMS	420	V
Maximum DC Blocking Voltage	VDC	600	V
Maximum Average Forward Rectified Current	I(AV)	1.0	A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	IFSM	40	A
I ² t rating for fusing (1ms < t < 8.3ms)	I ² t	6.6	A ² S
Maximum Forward Voltage at 1.0A and 25°C	VF	1.0	V
Maximum DC Reverse Current @TA=25 °C at Rated DC Blocking Voltage @TA=125 °C	IR	5 100	µA
Typical Junction Capacitance (Note1)	C _j	15	pF
Operating and Storage Temperature Range	T _j , T _{stg}	-50 ~ +150	°C
Typical Thermal Resistance(2)	R _{θJA}	75	°C/W
	R _{θJC}	16	°C/W

Note: 1. Measured at 1MHz and applied reverse voltage of 4 VDC.

2. Valid provided that electrodes are kept at ambient temperature.

RATINGS AND CHARACTERISTICS CURVES ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Fig.1 Maximum Average Forward Current Rating

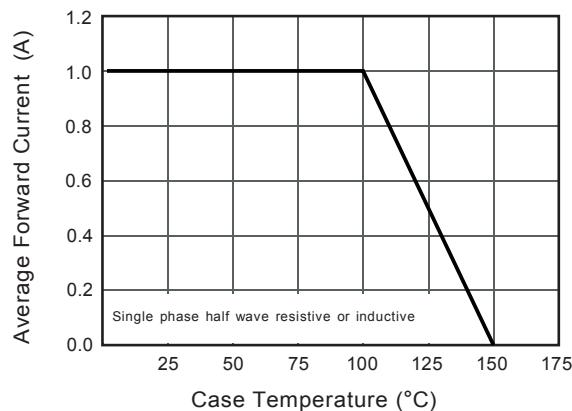


Fig.2 Typical Reverse Characteristics

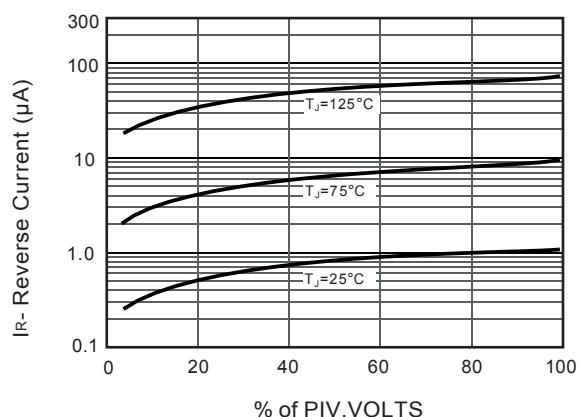


Fig.3 Typical Forward Characteristics

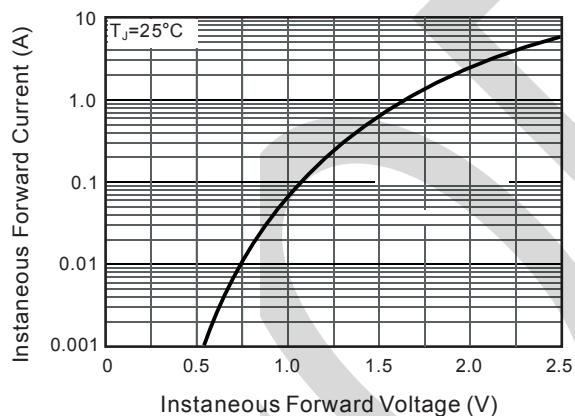


Fig.4 Typical Junction Capacitance

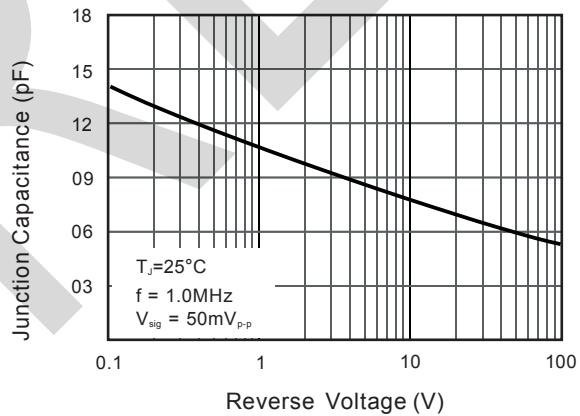
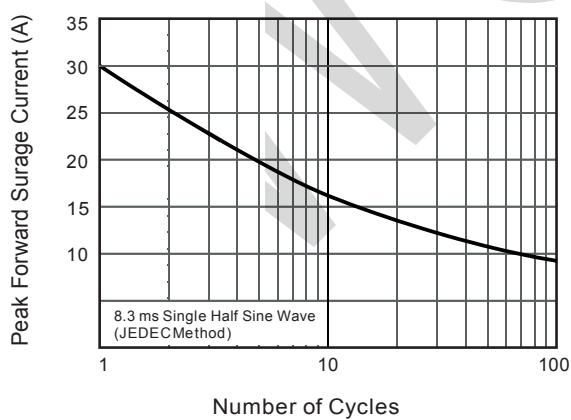
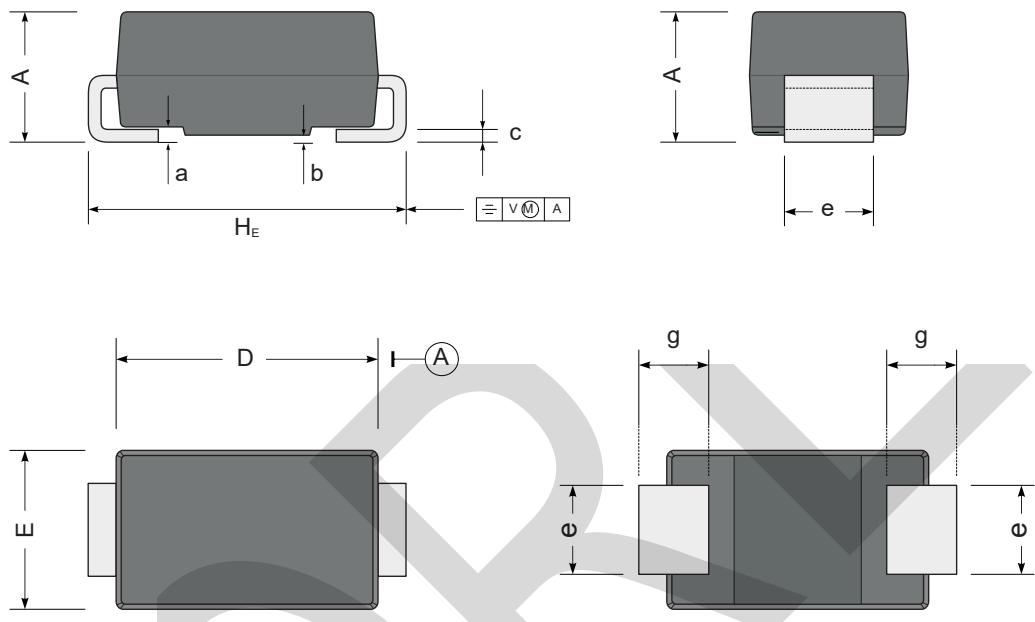


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



PACKAGE OUTLINE DIMENSIONS

SMA



UNIT		A	D	E	H _E	c	e	g	b	a
mm	max	2.3	4.5	2.7	5.2	0.31	1.6	1.5	0.2	0.3
	min	1.9	4.0	2.3	4.7	0.15	1.3	0.9	0.05	
mil	max	91	181	106	205	12	63	59	7.9	12
	min	75	157	91	185	6	51	35	2	