

## Surface Mount General Purpose Silicon Rectifiers

Reverse Voltage - 2000 V

Forward Current - 1.5 A

### FEATURES

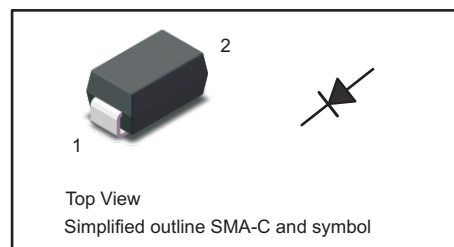
- For surface mounted applications
- Low profile package
- Glass Passivated Chip Junction
- Easy to pick and place
- Lead free in comply with EU RoHS 2011/65/EU directives

### MECHANICAL DATA

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

### PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



### 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 %.

Parameter	Symbols	SM520	Units
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	2000	V
Maximum RMS voltage	$V_{RMS}$	1400	V
Maximum DC blocking voltage	$V_{DC}$	2000	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	1.5	A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	$I_{FSM}$	50	A
Maximum Instantaneous Forward Voltage at 1.5 A	$V_F$	1.15	V
Maximum Reverse Current $T_J = 25\text{ }^\circ\text{C}$ $T_J = 125\text{ }^\circ\text{C}$	$I_R$	5 50	$\mu\text{A}$
Typical Junction Capacitance (1)	$C_j$	9	pF
Typical Thermal Resistance (2)	$R_{\theta JA}$ $R_{\theta JL}$	90 20	$^\circ\text{C/W}$
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 0.2 X 0.2" (5 X 5 mm) copper pad areas.



Fig.1 Forward Current Derating Curve

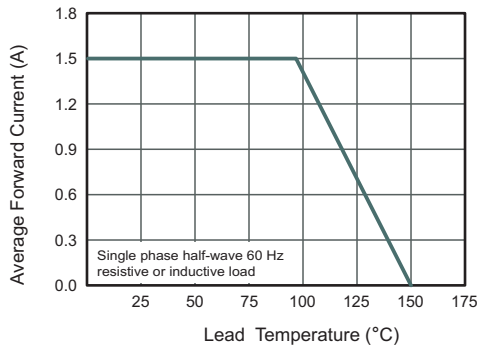


Fig.2 Typical Reverse Characteristics

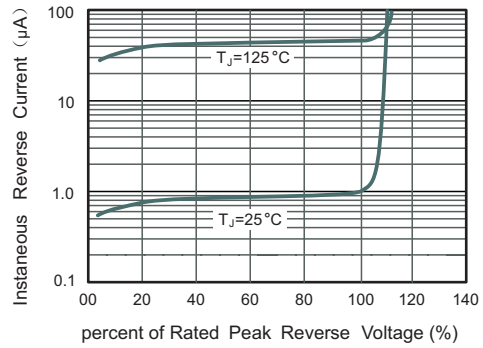


Fig.3 Typical Instantaneous Forward Characteristics

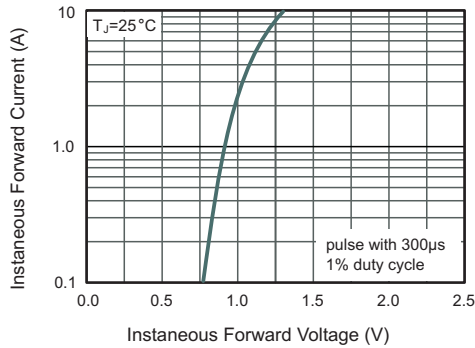


Fig.4 Typical Junction Capacitance

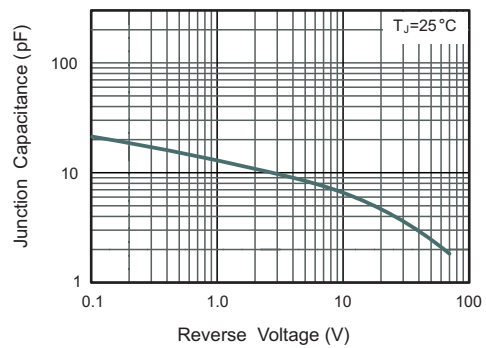
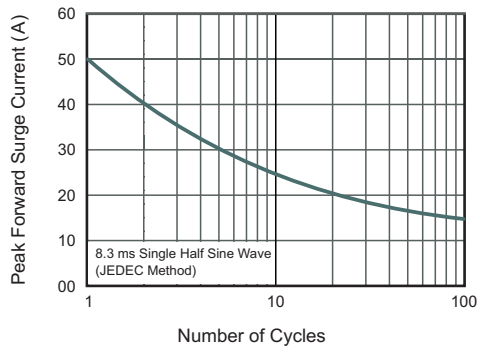


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

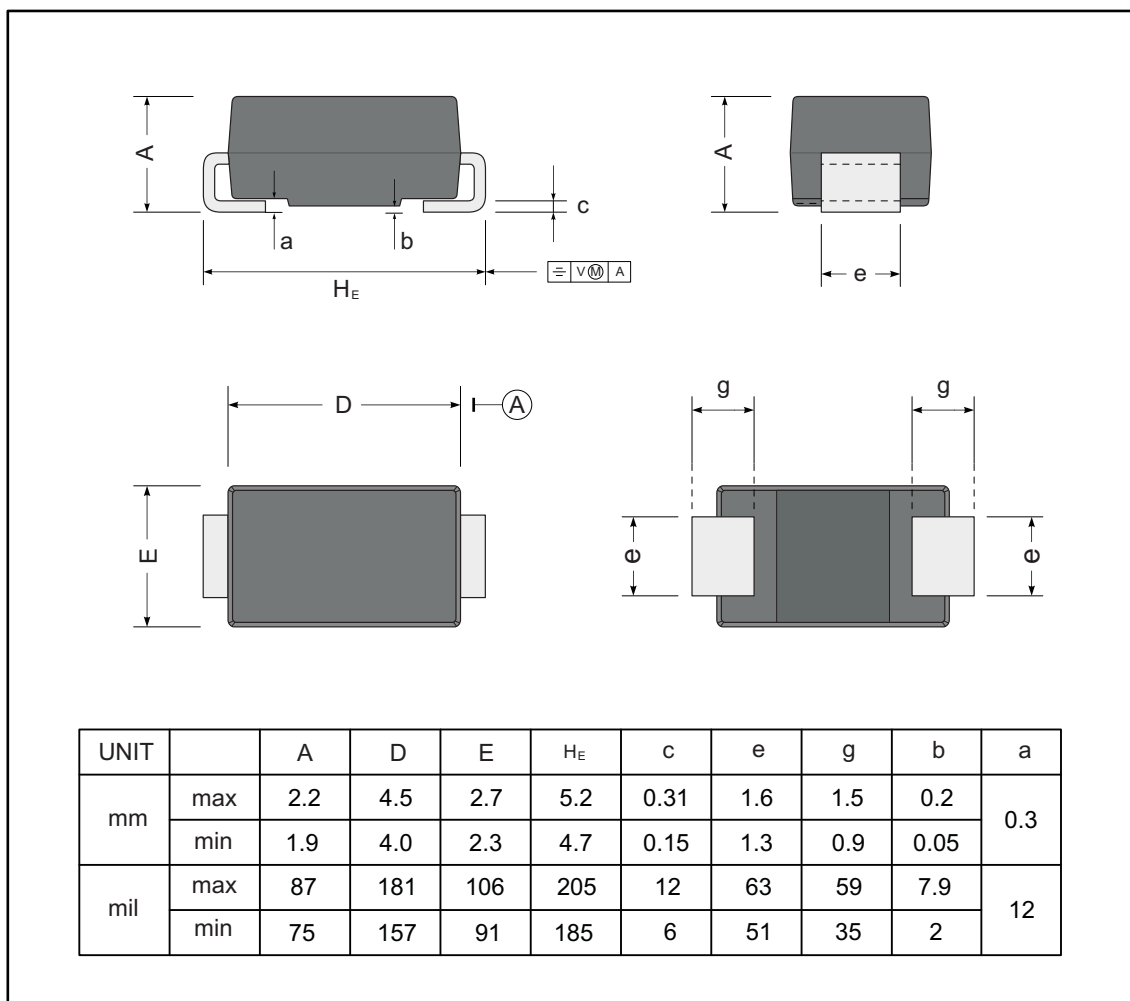




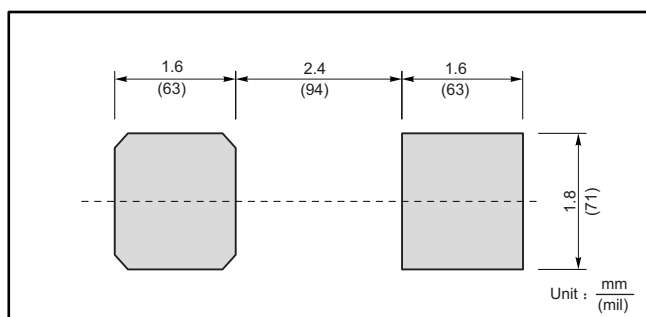
### PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SMA-C



### The recommended mounting pad size



### Marking

Type number	Marking code
SM520	SM520



文件履历表

序号	制/修订日期	生效日期	版次	修订内容	变更原因	制/修订人	备注
01	2023.6.24	2023.6.26	Rev 1.1	初版制定	/	郭金铮	



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