

Surface Mount Schottky Barrier Rectifier Reverse Voltage - 20 to 200 V Forward Current - 5.0A

Features

- Metal silicon junction, majority carrier conduction
- For surface mounted applications
- Low power loss, high efficiency
- High forward surge current capability
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

MECHANICAL DATA

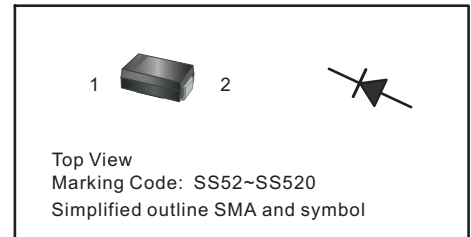
- Case: SMA
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 60mg / 0.0021oz

Absolute Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz resistive or inductive load, for capacitive load, derate by 20 %

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



Parameter	Symbols	SS52G	SS54G	SS56G	SS58G	SS510G	SS512G	SS515G	SS520G	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	20	40	60	80	100	120	150	200	V
Maximum RMS voltage	V_{RMS}	14	28	42	56	70	84	105	140	V
Maximum DC Blocking Voltage	V_{DC}	20	40	60	80	100	120	150	200	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	5.0								A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	120				100				A
Max Instantaneous Forward Voltage at 5A	V_F	0.55		0.70		0.85				V
Maximum DC Reverse Current $T_a = 25^\circ\text{C}$ at Rated DC Reverse Voltage $T_a = 100^\circ\text{C}$	I_R					1.0 50				mA
Typical Junction Capacitance ⁽¹⁾	C_j	500		300						pF
Typical Thermal Resistance ⁽²⁾	$R_{\theta JA}$	60								$^\circ\text{C}/\text{W}$
Operating Junction Temperature Range	T_j	-55 ~ +150								$^\circ\text{C}$
Storage Temperature Range	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 2.0" X 2.0" (5 X 5 cm) copper pad areas.

Fig.1 Forward Current Derating Curve

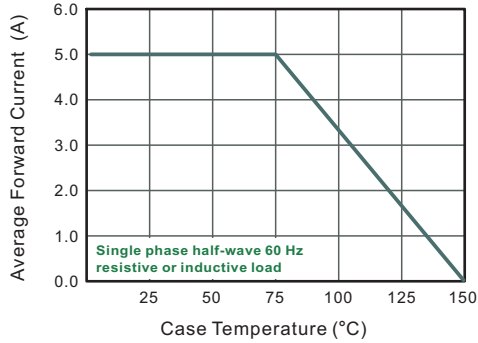


Fig.2 Typical Reverse Characteristics

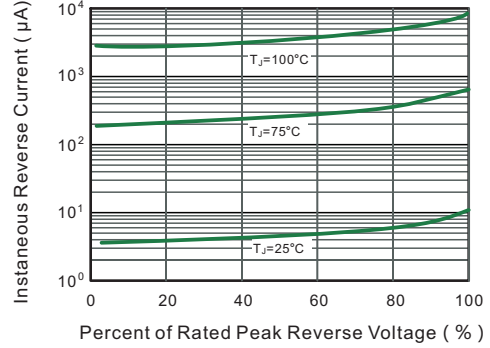


Fig.3 Typical Forward Characteristic

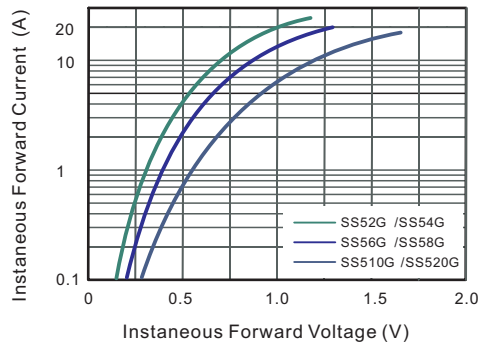


Fig.4 Typical Junction Capacitance

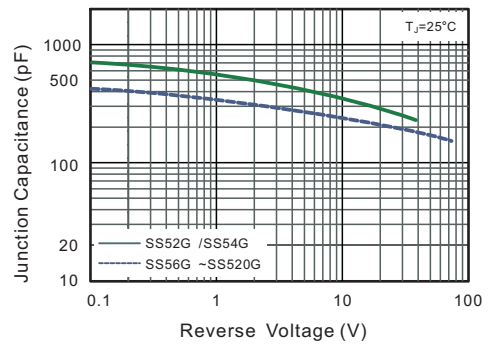


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

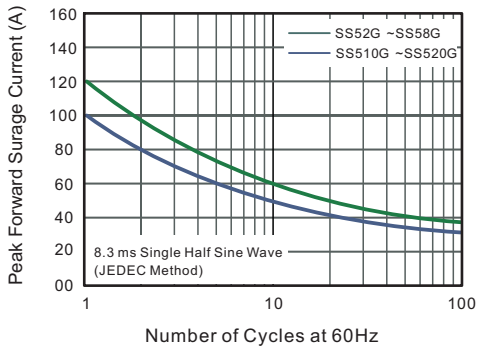
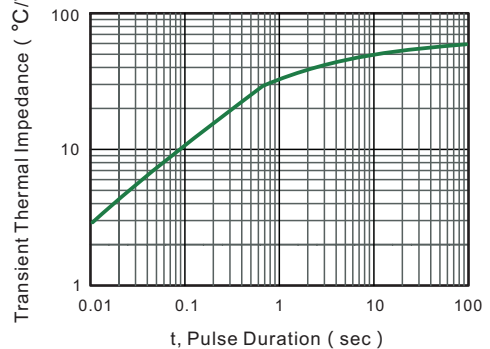


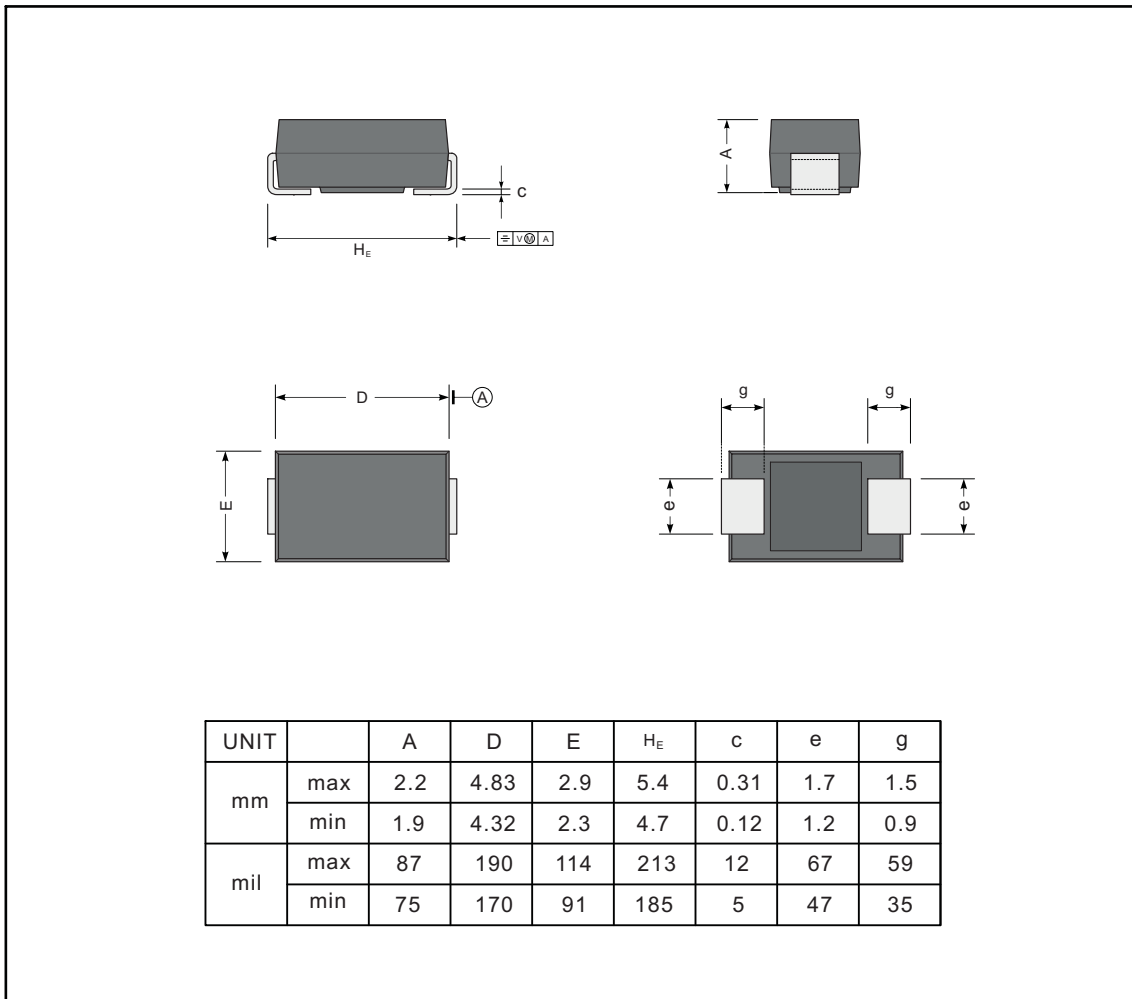
Fig.6- Typical Transient Thermal Impedance



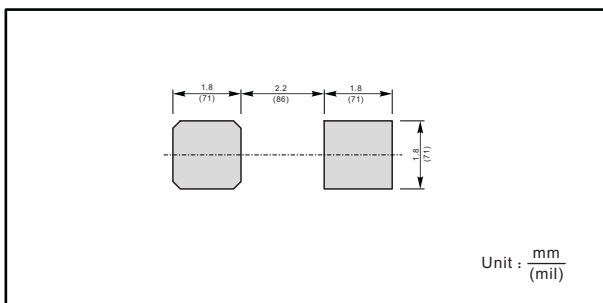
PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SMA



The recommended mounting pad size



Marking

Type number	Marking code
SS52G	SS52
SS54G	SS54
SS56G	SS56
SS58G	SS58
SS510G	SS510
SS512G	SS512
SS515G	SS515
SS520G	SS520