S8KC THRU S8MC

Surface Mount General Purpose Silicon Rectifiers



Reverse Voltage - 800 to 1000 V
Forward Current - 8 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: SMC
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.22g / 0.0077oz

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	S8KC	S8MC	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	800	1000	V
Maximum RMS voltage	V_{RMS}	560	700	V
Maximum DC Blocking Voltage	V_{DC}	800	1000	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	8		A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	I_{FSM}	200		A
Maximum Instantaneous Forward Voltage at 8 A	V_F	1.0		V
Maximum DC Reverse Current T_a = 25 °C at Rated DC Blocking Voltage T_a =125 °C	I_R	10 250		μA
Typical Junction Capacitance (1)	C_j	40		pF
Typical Thermal Resistance (2)	$R_{\theta JA}$ $R_{\theta JC}$	35 13		°C/W
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150		°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

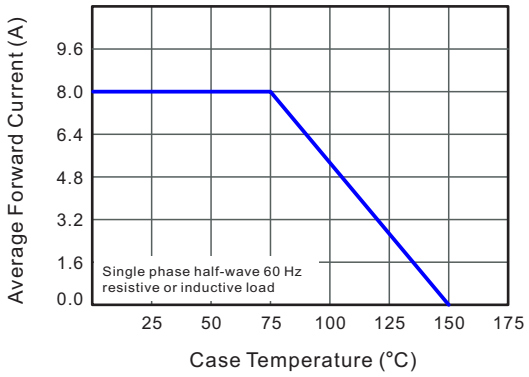


Fig.2 Typical Reverse Characteristics

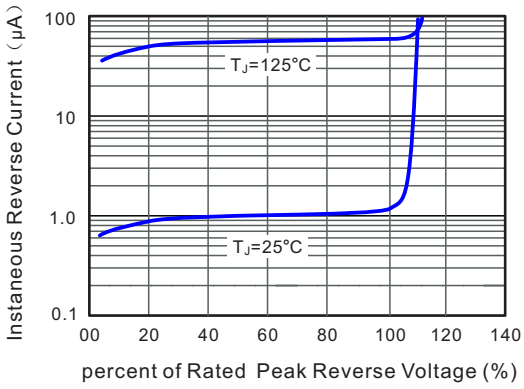


Fig.3 Typical Forward Characteristic

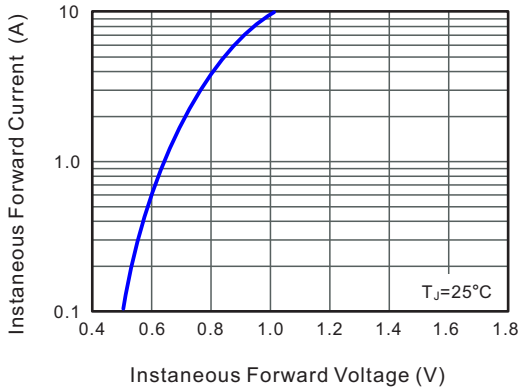


Fig.4 Typical Junction Capacitance

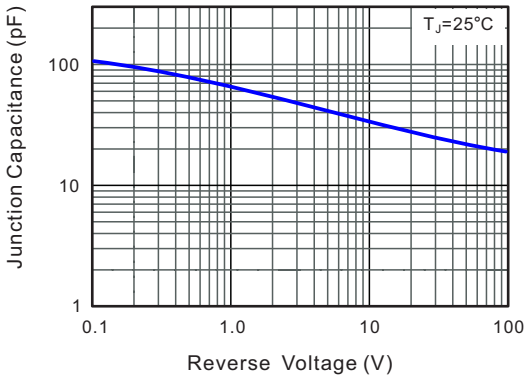
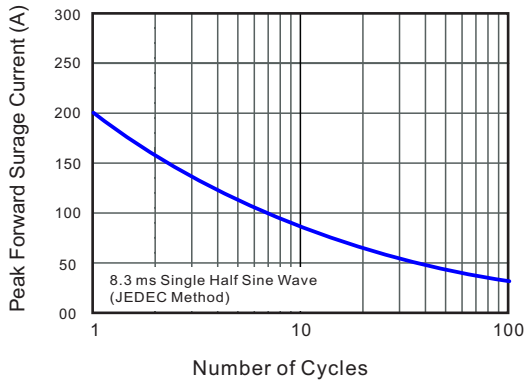
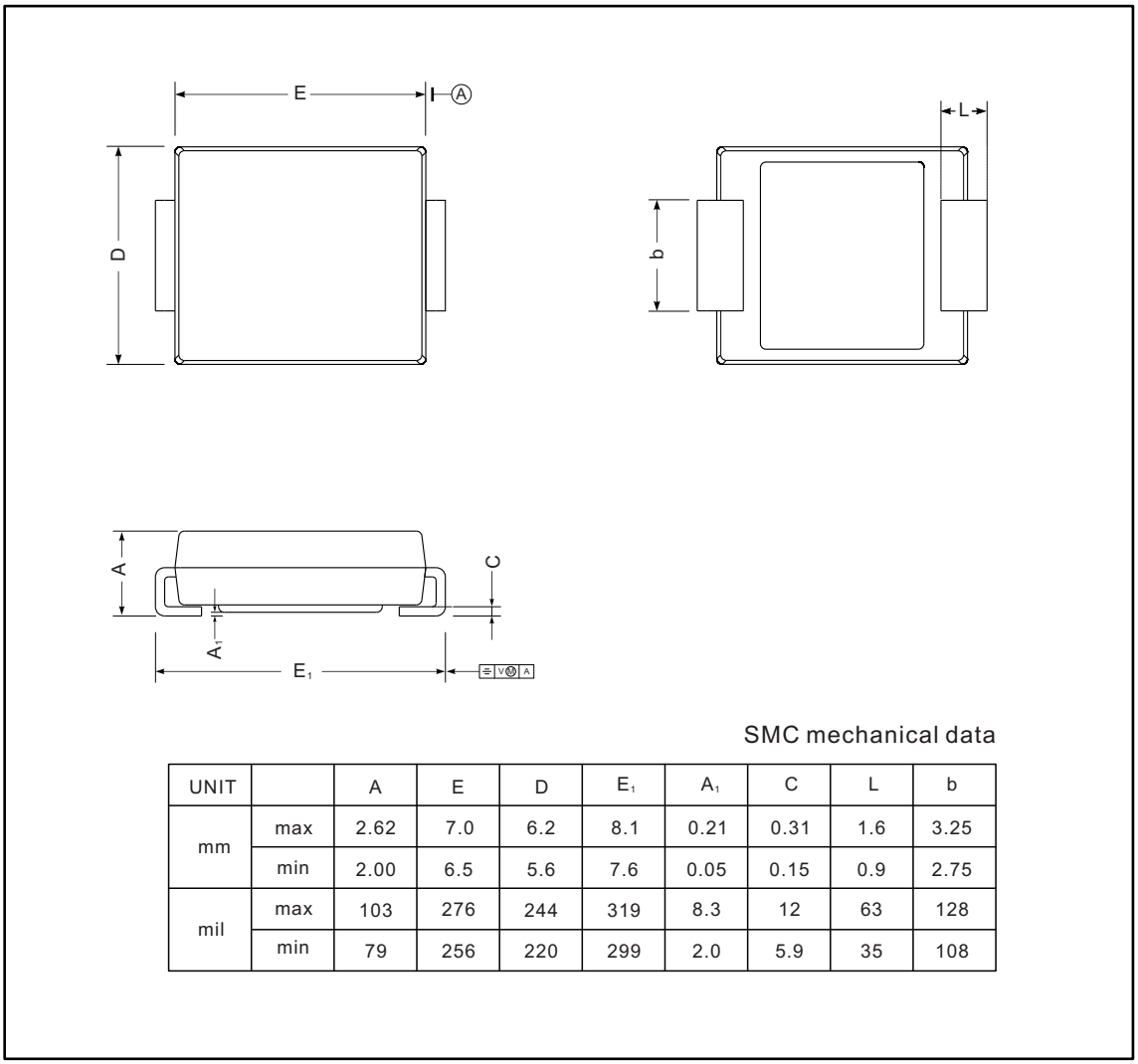


Fig.6 Maximum Non-Repetitive Peak Forward Surage Current



PACKAGE OUTLINE

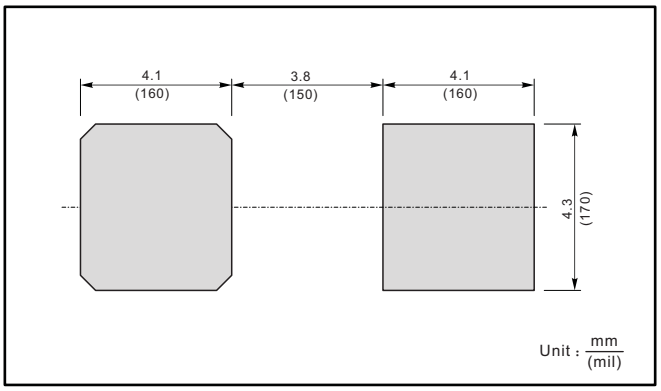
Plastic surface mounted package; 2 leads



SMC mechanical data

UNIT		A	E	D	E_1	A_1	C	L	b
mm	max	2.62	7.0	6.2	8.1	0.21	0.31	1.6	3.25
	min	2.00	6.5	5.6	7.6	0.05	0.15	0.9	2.75
mil	max	103	276	244	319	8.3	12	63	128
	min	79	256	220	299	2.0	5.9	35	108

The recommended mounting pad size



Marking

Type number	Marking code
S8KC	S8K
S8MC	S8M