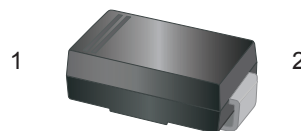


Surface Mount General Purpose Silicon Rectifiers

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

SMA



CIRCUIT DIAGRAM



MECHANICAL DATA

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

MARKING

Type number	Marking code
M1	M1
M2	M2
M3	M3
M4	M4
M5	M5
M6	M6
M7	M7

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	M1	M2	M3	M4	M5	M6	M7	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	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 at Rated DC Blocking Voltage	I_R	$T_a = 25\text{ °C}$ 5 $T_a = 125\text{ °C}$ 50							μA
Typical Junction Capacitance ⁽¹⁾	C_j	15							pF
Typical Thermal Resistance ⁽²⁾	R_{θ}	75							°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 1.0 X 1.0" (2.54 X 2.54 cm) copper pad areas.

TYPICAL CHARACTERISTICS

Fig.1 Forward Current Derating Curve

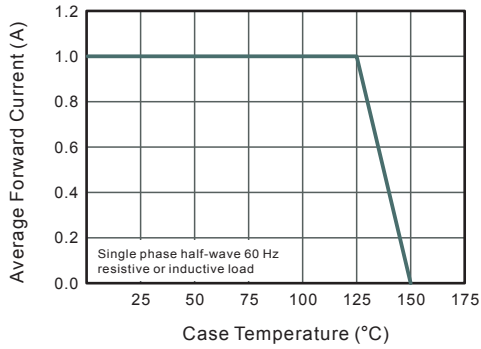


Fig.2 Typical Instantaneous Reverse Characteristics

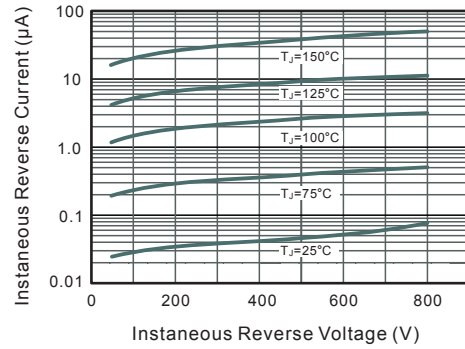


Fig.3 Typical Forward Characteristic

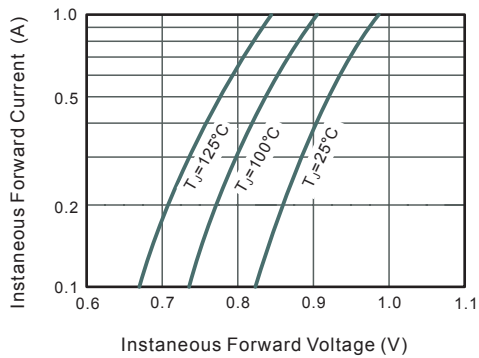


Fig.4 Typical Junction Capacitance

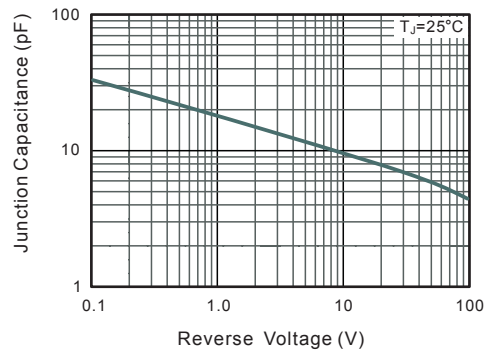
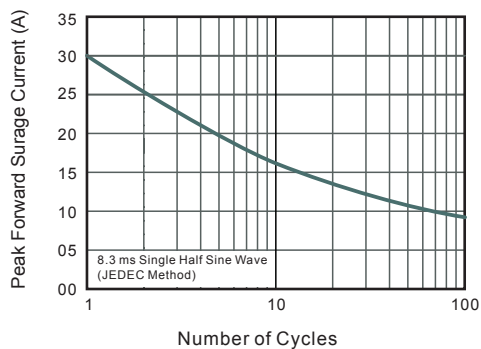
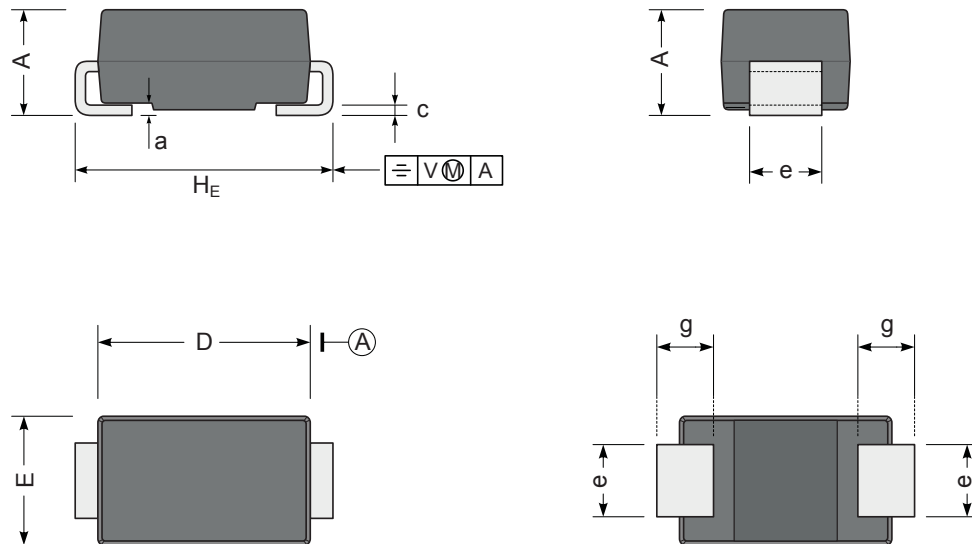


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



SMA PACKAGE OUTLINE DRAWING



SYM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	1.9	2.2	0.075	0.087
D	4.0	4.5	0.157	0.181
E	2.3	2.7	0.091	0.106
HE	4.7	5.2	0.185	0.205
c	0.15	0.31	0.006	0.012
e	1.3	1.6	0.051	0.063
g	0.9	1.5	0.035	0.059
a	0.3		12	