

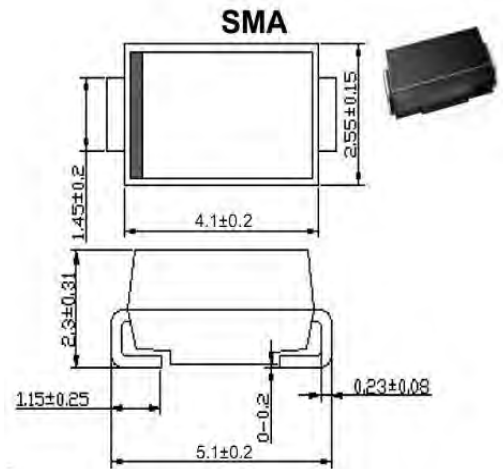
Surface Mount General Purpose Silicon Rectifiers
Reverse Voltage - 1600 & 2000 V
Forward Current - 1.0 A

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



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	SM516	SM520	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	1600	2000	V
Maximum RMS voltage	V_{RMS}	1120	1400	V
Maximum DC blocking voltage	V_{DC}	1600	2000	V
Maximum Average Forward Rectified Current at $T_c = 100\text{ }^\circ\text{C}$	$I_{F(AV)}$	1.0		A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	30		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		μA
Typical Junction Capacitance ¹⁾	C_j	20		pF
Typical Thermal Resistance ²⁾	$R_{\theta JA}$	95		$^\circ\text{C/W}$
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

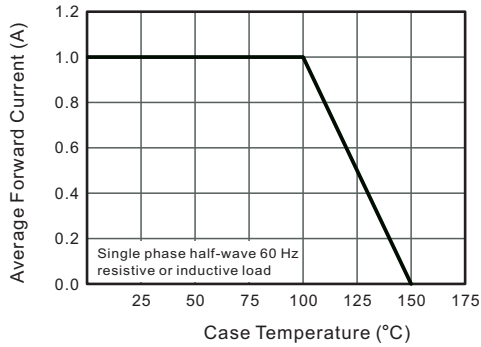


Fig.2 Typical Reverse Characteristics

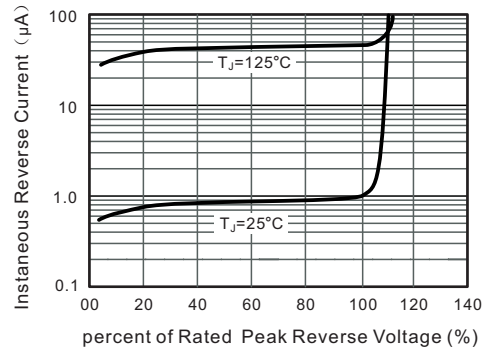


Fig.3 Typical Instantaneous Forward Characteristics

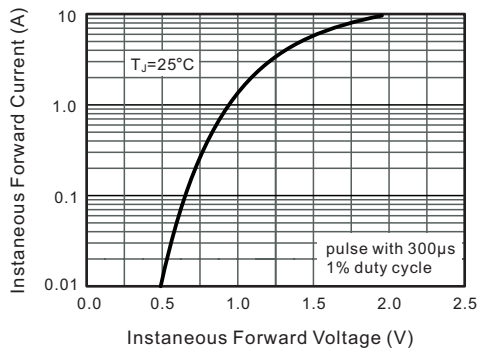


Fig.4 Typical Junction Capacitance

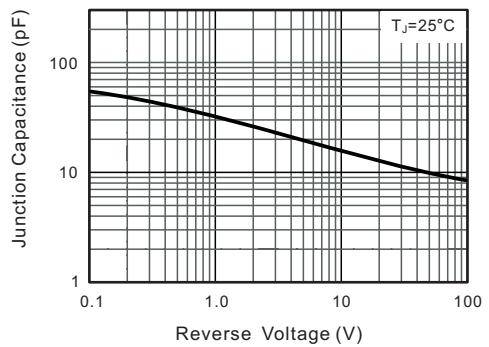


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

