



S6M-SMC-120M

Reverse Voltage - 50 to 1000 Volts Forward Current - 6.0 Ampere

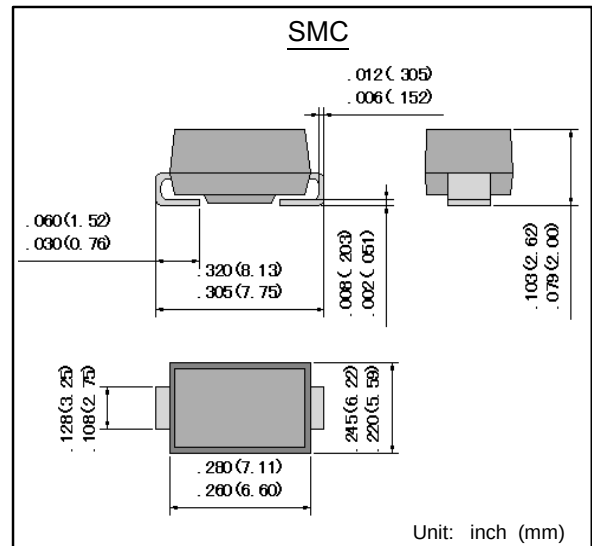
SURFACE MOUNT GENERAL RECTIFIER

Features

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ For surface mounted applications
- ◆ Low reverse leakage
- ◆ Built-in strain relief, ideal for automated placement
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed:
250 °C/10 seconds at terminals

Mechanical Data

Case : JEDEC DO-214AB/SMC molded plastic body
Terminals : Solderable per MIL-STD-750, Method 2026
Polarity : Polarity symbol marking on body
Mounting Position : Any
Weight : 0.0077 ounce, 0.22 grams



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 current derate by 20%.

Parameter	SYMBOLS	S6M-SMC-120M	UNITS
Marking Code			
Maximum repetitive peak reverse voltage	V_{RRM}	1000	V
Maximum RMS voltage	V_{RMS}	700	V
Maximum DC blocking voltage	V_{DC}	1000	V
Maximum average forward rectified current	$I_{(AV)}$	6.0	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	150	A
Maximum instantaneous forward voltage at 6.0A	V_F	1.15	V
Maximum DC reverse current $T_A=25^{\circ}C$ at rated DC blocking voltage $T_A=125^{\circ}C$	I_R	5 100	μA
Typical junction capacitance (NOTE 1)	C_J	100	pF
Typical thermal resistance (NOTE 2)	$R_{\theta JA}$ $R_{\theta JC}$	35 13	$^{\circ}C/W$
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +150	$^{\circ}C$

*Pulse test: Pulse width 200 μsec , Duty cycle 2%

Note: 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



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Typical Characteristics

Fig.1 Forward Current Derating Curve

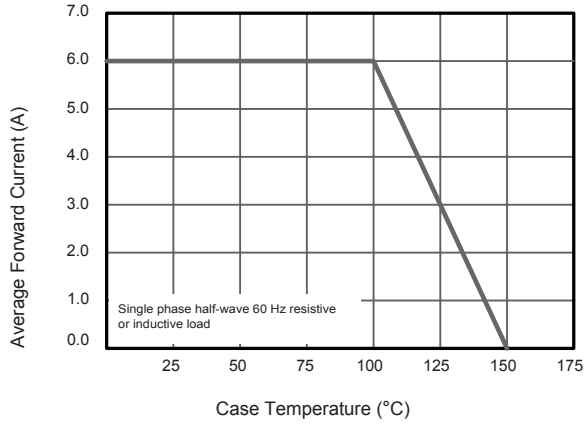


Fig.2 Typical Reverse Characteristics

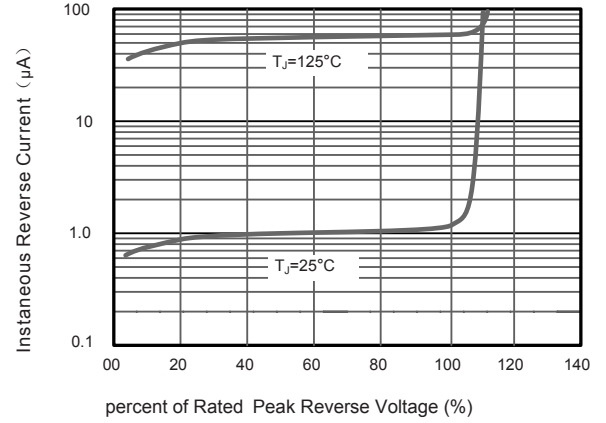


Fig.3 Typical Forward Characteristic

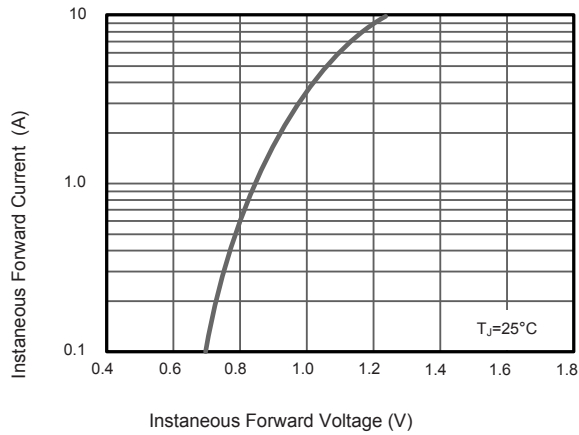


Fig.4 Typical Junction Capacitance

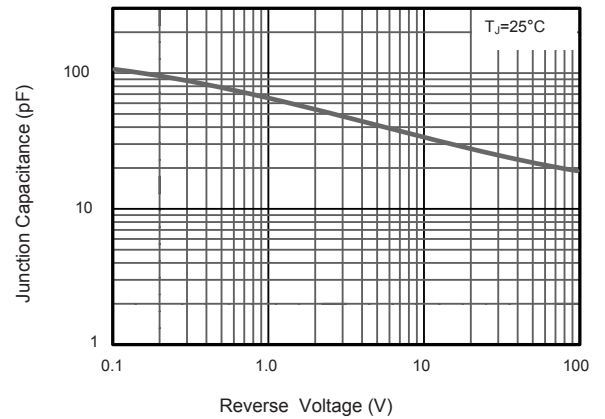
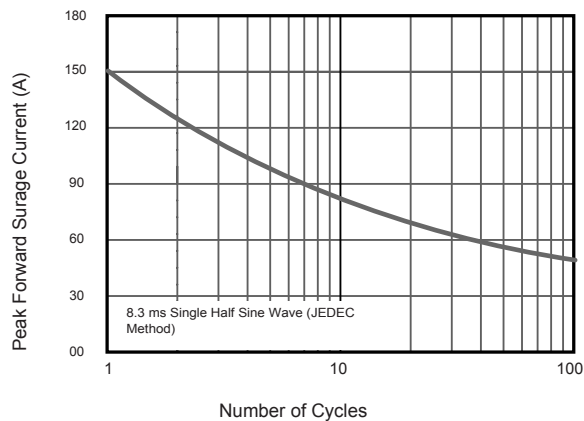


Fig.6 Maximum Non-Repetitive Peak Forward Surge Current



The curve above is for reference only.