



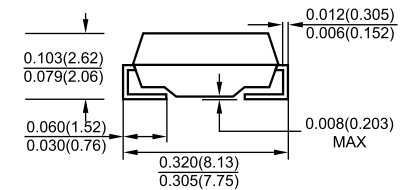
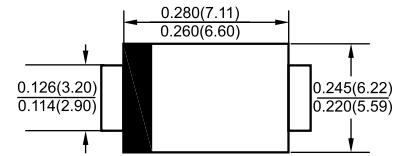
Features

- ✧ Plastic package has underwriters laboratory flammability classification 94V-0
- ✧ For surface mounted applications
- ✧ Low profile package
- ✧ Built-in strain relief, ideal for automated placement
- ✧ High temperature soldering:
- ✧ 250°C/10 seconds at terminals

Mechanical Data

- ✧ Case: JEDEC DO-214AB, molded plastic over passivated chip
- ✧ Polarity: Color band denotes cathode end
- ✧ Weight: 0.007 ounces, 0.21 gram

SMC/DO-214AB



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified

		S12AC	S12BC	S12DC	S12GC	S12JC	S12KC	S12MC	UNITS
Maximum recurrent peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RWS}	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 @ $T_L = 90^\circ\text{C}$	$I_{F(AV)}$	12							A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	300							A
Maximum Instantaneous forward voltage at 1.2 A	V_F	1.1							V
Maximum DC reverse current @ $T_A = 25^\circ\text{C}$ at rated DC blocking voltage @ $T_A = 125^\circ\text{C}$	I_R	5 500							μA
Typical junction capacitance	C_J	85							pF
Typical thermal resistance (NOTE 2)	$R_{\theta JA}$	45							$^\circ\text{C/W}$
Operating junction and storage temperature range	$T_J T_{STG}$	-55 TO +150							$^\circ\text{C}$

NOTE: 1. Measured at 1.0MHz and applied reverse voltage of 4.0 Volts

2. Thermal resistance from junction to ambient and junction to lead P.C.B. mounted on 0.27"X0.27" (7.0X7.0) ² copper pad areas



CHARACTERISTICS CURVES

($T_A = 25^\circ\text{C}$ unless otherwise noted)

Fig.1 Forward Current Derating Curve

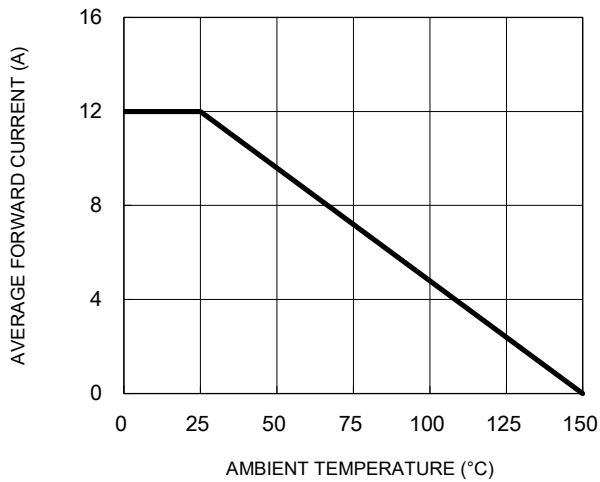


Fig.2 Maximum Non-Repetitive Forward Surge Current

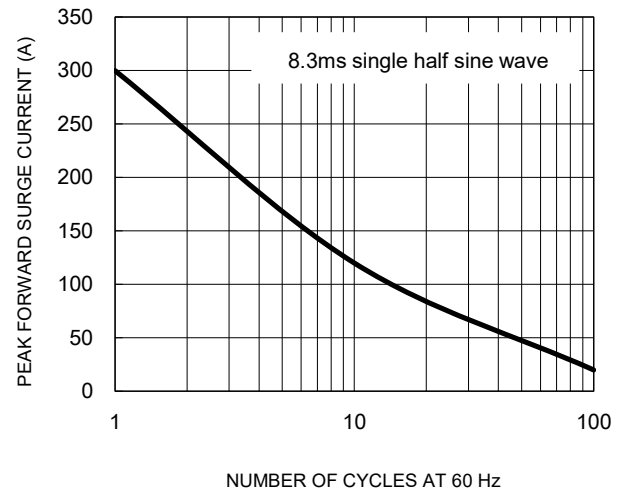


Fig.3 Typical Reverse Characteristics

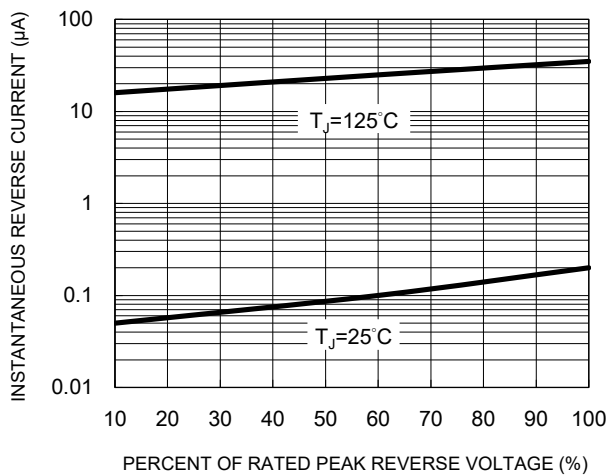


Fig.4 Typical Forward Characteristics

