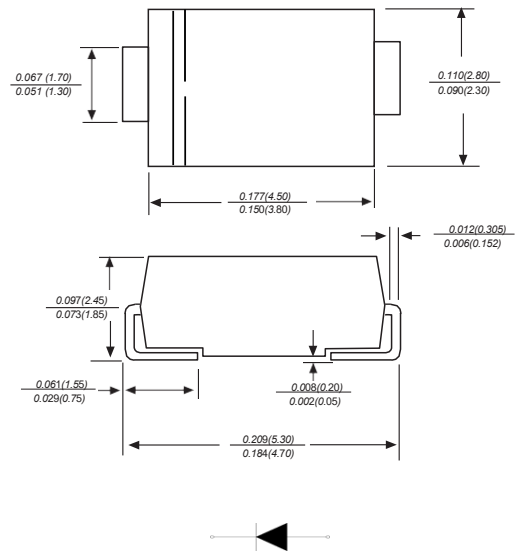


SURFACE MOUNT GENERAL RECTIFIER

Features

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ For surface mounted applications

DO-214AC/SMA



Dimensions in inches and (millimeters)

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	SM516	SM520	UNITS
Marking Code		M516	M520	
Maximum repetitive peak reverse voltage	V_{RMM}	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 $T_L=100^\circ\text{C}$	$I_{(AV)}$	1.5		A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	50		A
Maximum instantaneous forward voltage at 1.5A	V_F	1.15		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 50		μA
Typical junction capacitance (NOTE 1)	C_J	20		pF
Typical thermal resistance (NOTE 2)	$R_{\theta JA}$	95		$^\circ\text{C/W}$
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 4.0V D.C.

2. P.C.B. Mounted with 0.2 X 0.2" (5 X 5 mm) copper pad area

3. The typical data above is for reference only.

Ratings And Characteristic Curves

Fig.1 Forward Current Derating Curve

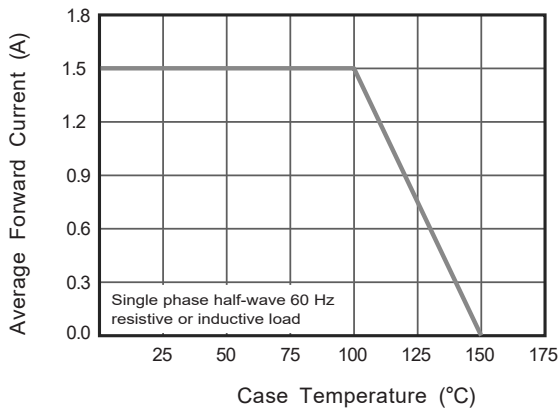


Fig.2 Typical Reverse Characteristics

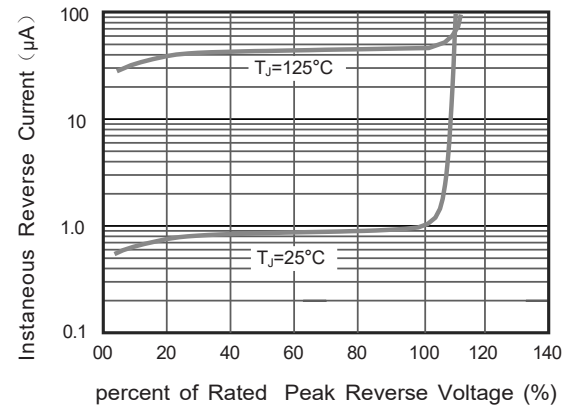


Fig.3 Typical Instantaneous Forward Characteristics

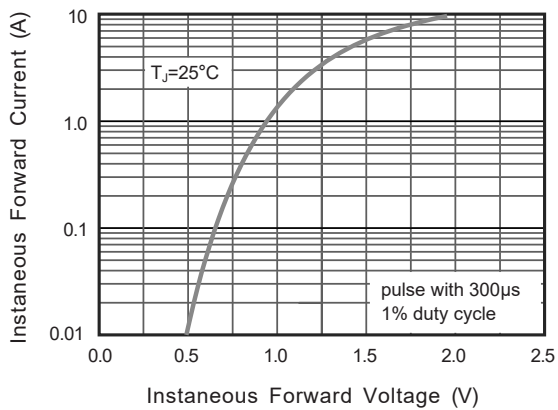


Fig.4 Typical Junction Capacitance

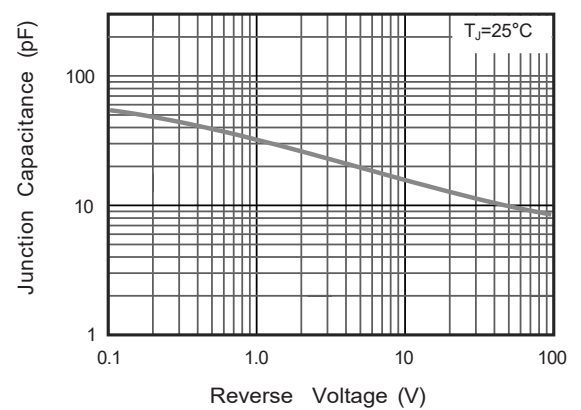
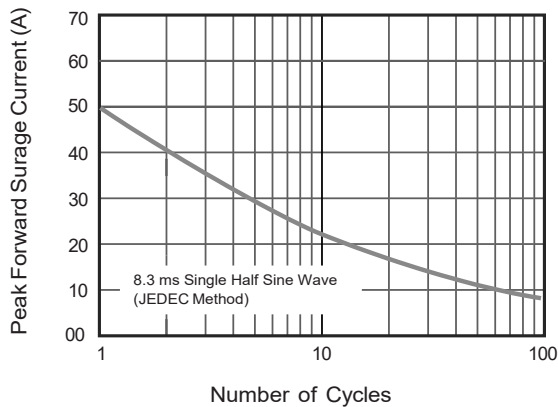


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current



The curve above is for reference only.