

SMA



Features

- Low reverse leakage
- Glass passivated junction
- High forward surge current capability
- High efficiency operation
- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0

Mechanical Data

- CASE: SMAJ(DO-214AC) Molded Plastic
- Polarity: Color band denotes cathode end
- Mounting position: ANY
- Weight: 0.0025 ounces, 0.071 gram

Maximum Ratings & 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	S1M	UNITS
	MARKING	S1M	
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 at $T_L = 100\text{ C}$	$I_{(AV)}$	1.0	A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	30.0	A
Maximum instantaneous forward voltage at 1.0A	V_F	1.10	V
Maximum DC reverse current $T_A = 25\text{ C}$ at rated DC blocking voltage $T_A = 125\text{ C}$	I_R	5.0 500	$\mu\text{ A}$
Typical junction capacitance (Note1)	C_J	18.0	pF
Typical thermal resistance	R_{qJA}	80.0	C/W
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +150	C

Note:1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

Summary of Packing Options

Package	Packing Description	Packing Quantity	Industry Standard
SMA	Tape/Reel, 11" reel	5000	EIA-481-1

Ratings and Characteristic Curves

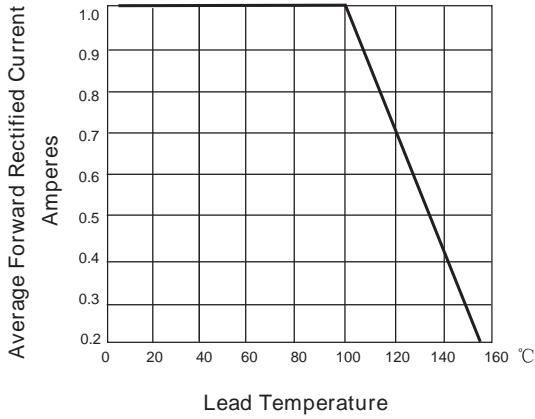


FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

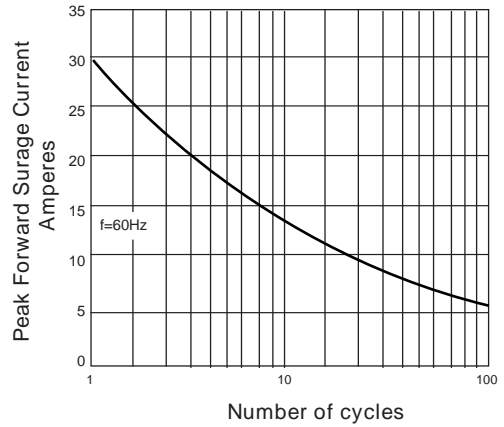


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

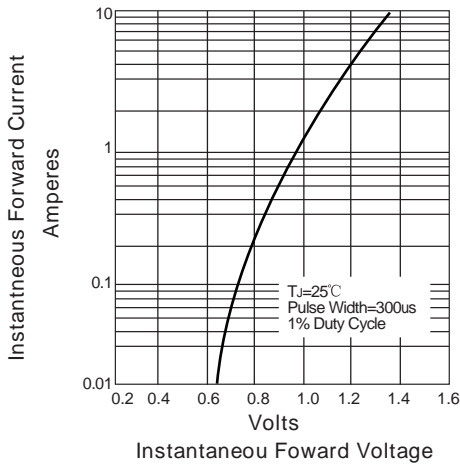


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

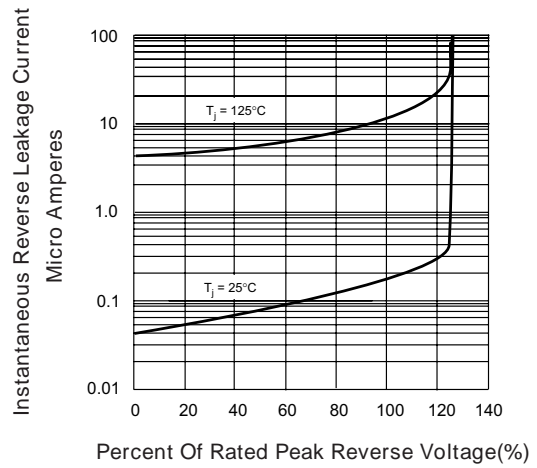


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS

Package Outline Dimensions: SMA(DO-214AC)

Dim	Millimeters		Inches	
	Min	Max	Min	Max
L	4.1	4.3	0.161	0.169
D	2.5	2.7	0.098	0.106
D1	1.3	1.5	0.051	0.059
T	4.8	5.2	0.189	0.205
T1	0.9	1.5	0.035	0.060
d	-	0.2	-	0.008
H	2.05	2.35	0.081	0.093
H1	2.0	2.2	0.079	0.087