



SMA



Features

Low forward voltage drop
 Guarding protection
 Glass passivated junction
 High current capability
 High efficiency operation
 Extremely low thermal resistance
 Halogen free and RoHS compliant

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%.)

CHARACTERISTICS	SYMBOL	SS54A	SS56A	SS510A	UNITS
	Marking	SS54	SS56	SS510	
Maximum repetitive peak reverse voltage	V_{RRM}	40	60	100	V
Maximum RMS voltage	V_{RWS}	28	42	70	V
Maximum DC blocking voltage	V_{DC}	40	60	100	V
Maximum average forward rectified current at $T_L=90^\circ\text{C}$	$I_{F(AV)}$	5.0			A
Peak forward surge current 8.3ms single half-sine-wave	I_{FSM}	70			A
Maximum instantaneous forward voltage at $I_{FM}=5.0\text{A}$ (NOTE1)	V_F	0.55	0.70	0.85	V
Maximum DC reverse current $T_J=25^\circ\text{C}$ at rated DC blocking voltage $T_J=125^\circ\text{C}$	I_R	0.5 50.0		0.1 10.0	m A
Maximum thermal resistance	$R_{\theta JL}$	60			$^\circ\text{C/W}$
Operating temperature range	T_J	-55 ---- +125			$^\circ\text{C}$
Storage temperature range	T_{STG}	-55 ---- +150			$^\circ\text{C}$

NOTE: 1.Pulse test: Pulse width 300us,duty cycle 1 %

Summary of Packing Options

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

Ratings and Characteristic Curves

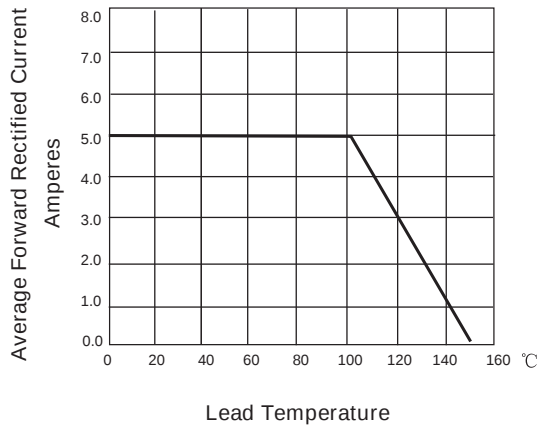


FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

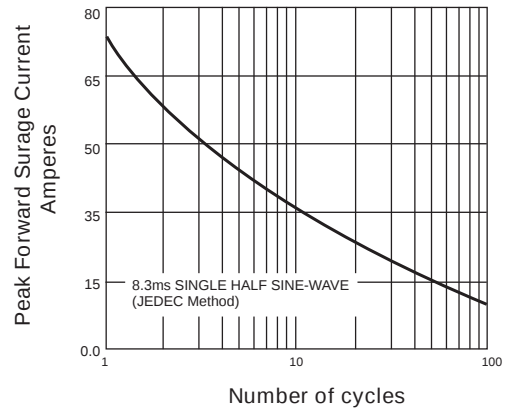


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

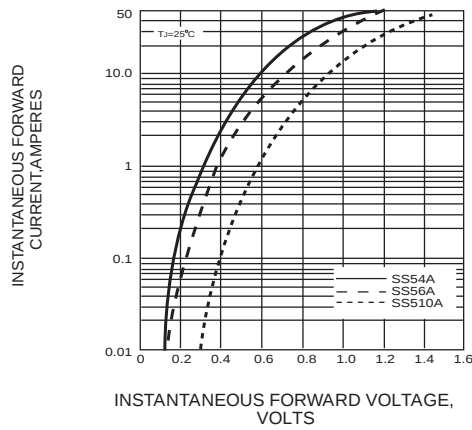


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

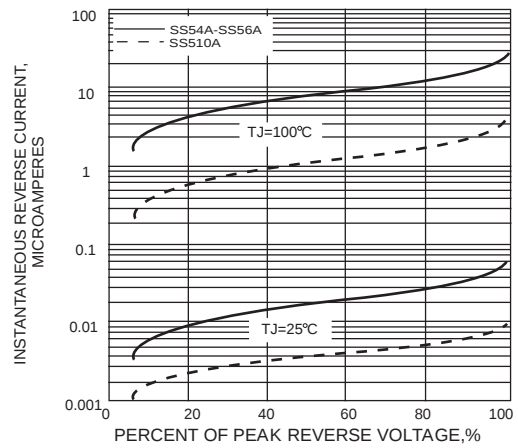


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS

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