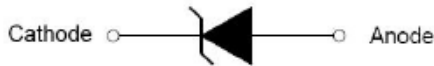


**SMA**

**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	ES1DA	ES1JA	UNITS
	MARKING	ES1D	ES1J	
Maximum repetitive peak reverse voltage	$V_{RRM}$	200	600	V
Maximum RMS voltage	$V_{RMS}$	140	420	V
Maximum DC blocking voltage	$V_{DC}$	200	600	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	$V_F$	0.95	1.70	V
Maximum DC reverse current $T_A=25\text{ C}$ at rated DC blocking voltage $T_A=125\text{ C}$	$I_R$	10 500		$\mu\text{ A}$
Maximum reverse recovery time(Note 1)	$T_{rr}$	35		ns
Typical junction capacitance (Note2)	$C_J$	18.0		pF
Typical thermal resistance	$R_{qJA}$	65.0		C/W
Operating junction and storage temperature range	$T_J, T_{STG}$	-55 to +150		C

Note: 1.Reverse recovery time test condition:  $I_F=0.5\text{ A}$   $I_R=1.0\text{ A}$   $I_{rr}=0.25\text{ A}$   
 2.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

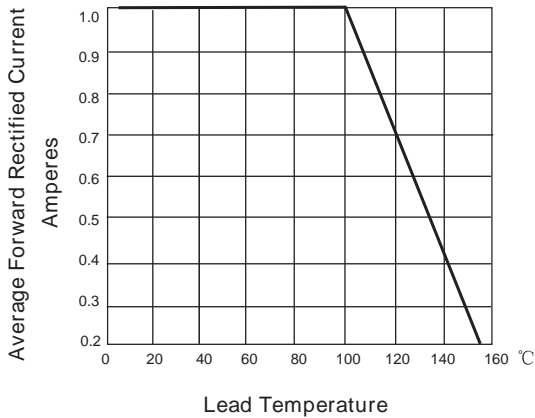


FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

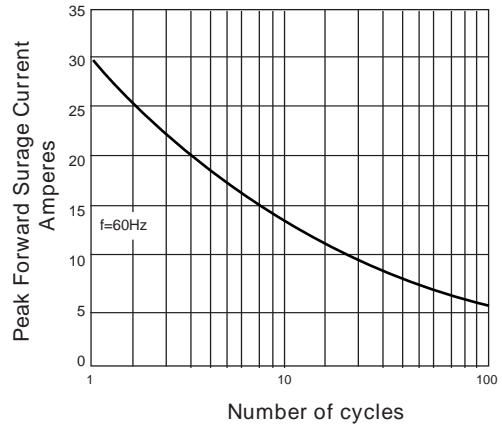


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

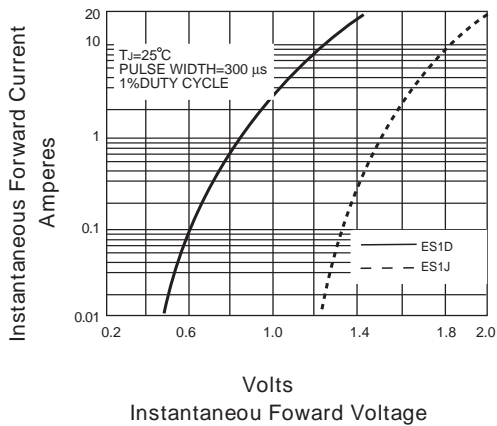


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

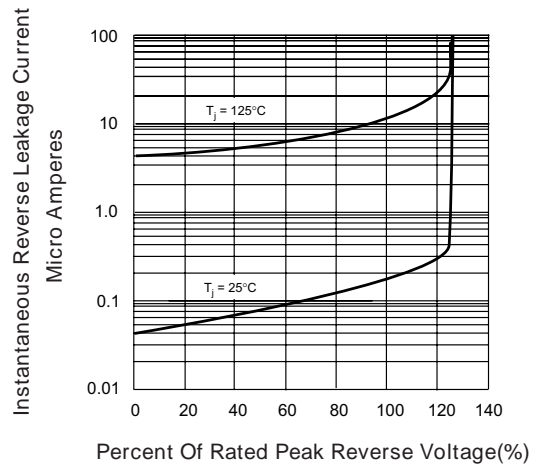


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS

## 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