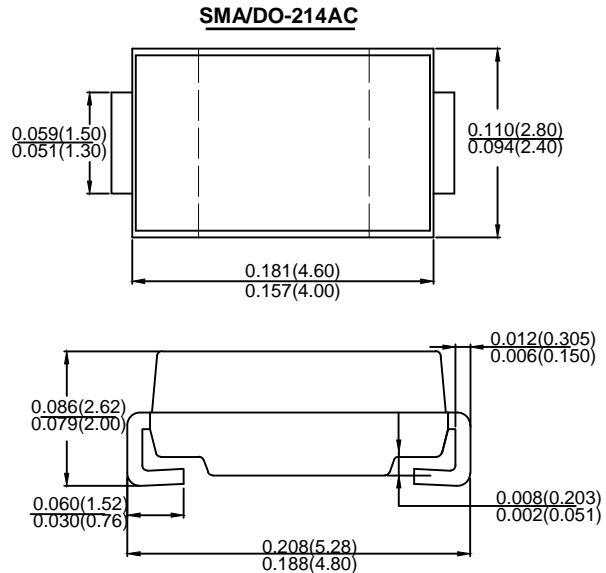


### Features

- Low Power Loss, High Efficiency
- Ideally Suited for Automatic Assembly
- Guard Ring Die Construction
- Plastic Case Material has UL Flammability Classification Rating 94V - 0

### Mechanical Data

- Case: Moeded plastic SMA
- Terminals: Plated leads solderable per MIL-STD-750, Method 2026 guaranteed
- Polarity: Color band dented cathode end
- Mounting Position: Any
- Making: Type Number



Dimensions in inches and (millimeters)

### Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load

For capacitive load derate current by 20%

Type Number	SYMBOL	ES1AN	ES1BN	ES1DN	ES1GN	ES1JN	Unit
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	V
Average Rectified Output Current @ $T_A = 75^\circ\text{C}$	$I_o$	1.0					A
Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	30					A
Forward Voltage @ $I_F = 1.0\text{A}$	$V_{FM}$	0.95			1.25	1.7	V
Peak Reverse Current @ $T_A = 25^\circ\text{C}$	$I_R$	5.0					uA
At Rated DC Blocking Voltage @ $T_A = 100^\circ\text{C}$		150					
Maximum Reverse Recovery Time (Note1)	$T_{rr}$	35					ns
Typical Junction Capacitance (Note 2)	$C_J$	10					pF
Typical Thermal Resistance Junction to Ambient (Note 3)	$R_{\theta JA}$	34					$^\circ\text{C/W}$
Operating Temperature Range	$T_J$	-55 to +150					$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-55 to +150					$^\circ\text{C}$

- Note:
1. Reverse Recovery Test Conditions:  $I_F = 0.5\text{A}$ ,  $I_R = 1.0\text{A}$ ,  $IRR = 0.25\text{A}$ .
  2. Measured at 1.0 MHz and Applied reverse Voltage of 4.0V D.C
  3. 8.0MM<sup>2</sup> (.013mm Thick) Land Areas.

FIG.1 MAXIMUM AVERAGE FORWARD CURRENT DERATING

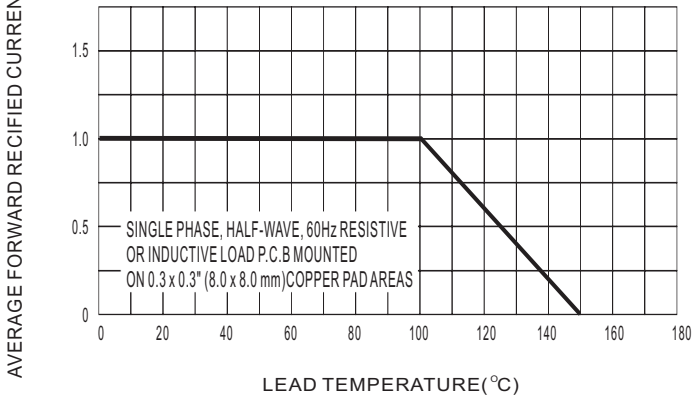


FIG.2 TYPICAL FORWARD CHARACTERISTICS

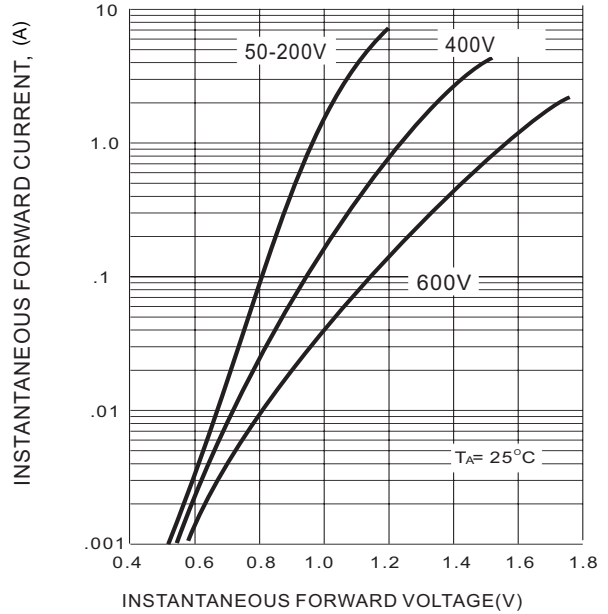


FIG.3 MAXIMUM NON-REPEITIVE SURGE CURRENT

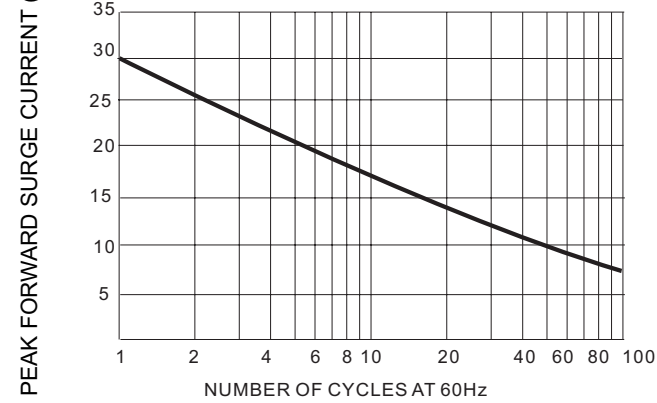


FIG.4 TYPICAL JUNCTION CAPACITANCE

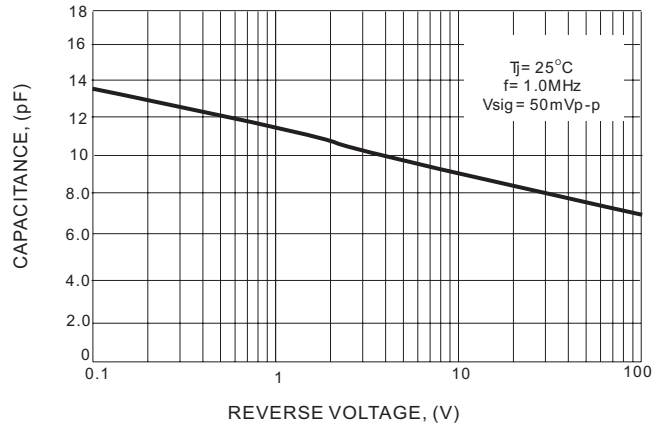


FIG.5 TYPICAL REVERSE CHARACTERISTICS

