

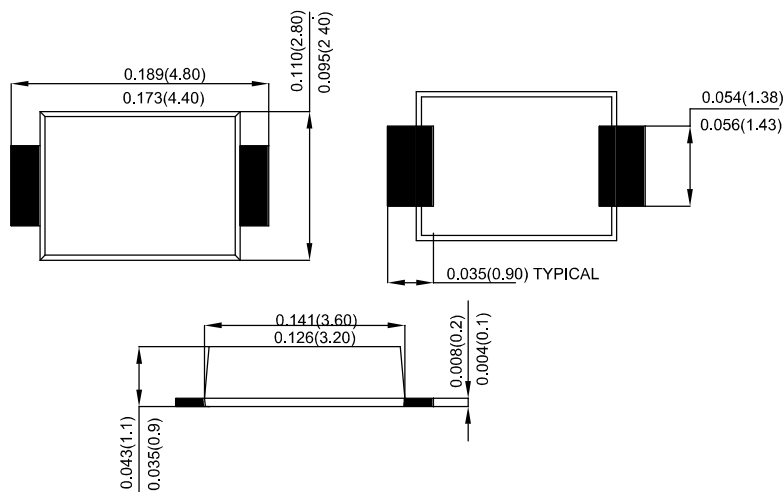
Features

- 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 SMAF
- Terminals: Plated leads solderable per MIL-STD-750, Method 2026 guaranteed
- Polarity: Color band dented cathode end
- Mounting Position: Any
- Marking: Type Number

SMAF



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	E1AN	E1BN	E1DN	E1GN	E1JN	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 °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 @IF=1.0A	V _{FM}	0.95			1.25	1.7	V
Peak Reverse Current @T _A =25 °C	I _R	5.0					uA
At Rated DC Blocking Voltage @T _A =100 °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 _{θ JA}	34					°C/W
Operating Temperature Range	T _J	-55 to+150					°C
Storage Temperature Range	T _{STG}	-55 to +150					°C

Note: 1. Reverse Recovery Test Conditions: $I_F = 0.5A$, $I_R = 1.0A$, $IRR = 0.25A$.

2. Measured at 1.0 MHz and Applied reverse Voltage of 4.0V D.C

3. 8.0MM² (.013mm Thick) Land Areas.

AVERAGE FORWARD RECIFIED CURRENT (A)

FIG.1 MAXIMUM AVERAGE FORWARD CURRENT DERATING

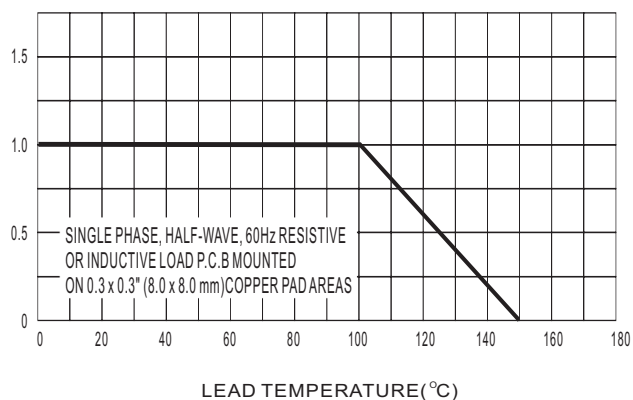
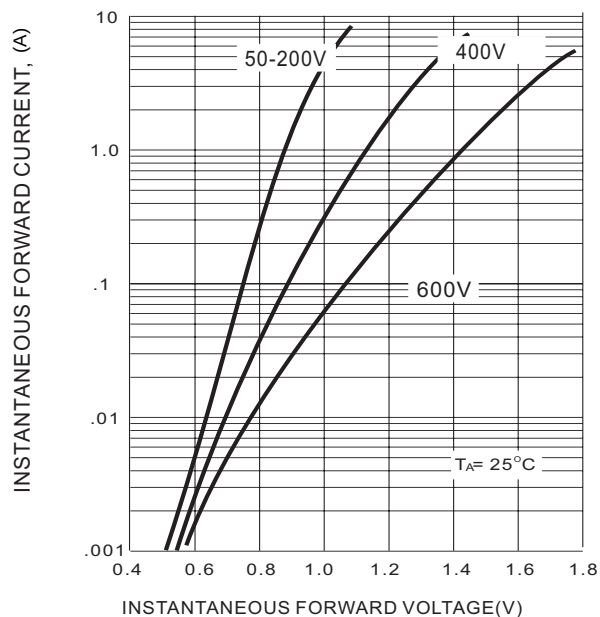


FIG.2 TYPICAL FORWARD CHARACTERISTICS



I_{FSM} PEAK FORWARD SURGE CURRENT (A)

FIG.3 MAXIMUM NON-REPEITIVE SURGE CURRENT

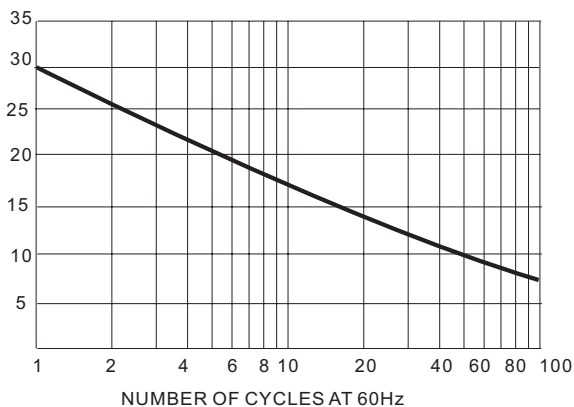
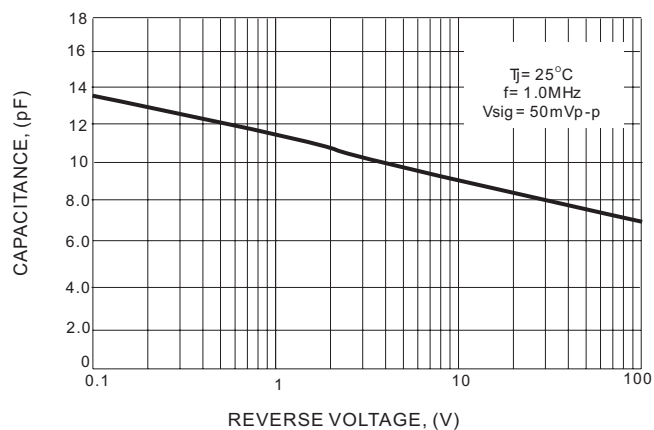


FIG.4 TYPICAL JUNCTION CAPACITANCE



INSTANTANEOUS REVERSE CURRENT, MICROAMPERES

FIG.5 TYPICAL REVERSE CHARACTERISTICS

