

Features

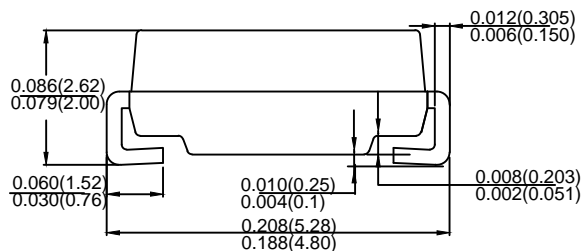
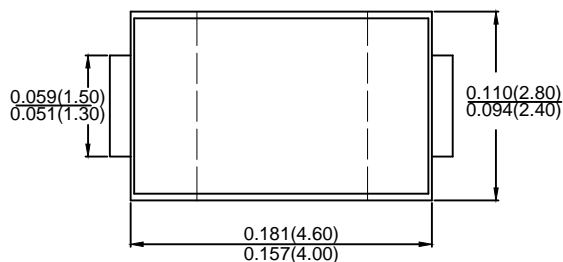
- Low Power Loss, High Efficiency
- Ideally Suited for Automatic Assembly
- Guard Ring Die Construction
- Plastic Case Material has UL Flammability Classification Rating 94V-0

Mechanical Data

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



SMA/DO-214AC



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	US1A	US1B	US1D	US1G	US1J	US1K	US1M	Unit
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Average Rectified Output Current @ $T_L = 100^\circ C$	$I_{F(AV)}$	1.0							A
Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30							A
Rating for fusing ($t < 8.3ms$)	$I^2 t$	3.74							$A^2 s$
Forward Voltage @ $I_F = 1.0A$	V_{FM}	1.0		1.3		1.7			V
Peak Reverse Current @ $T_A = 25^\circ C$	I_R	5.0							uA
At Rated DC Blocking Voltage @ $T_A = 125^\circ C$		200							
Maximum Reverse Recovery Time (Note 1)	T_{rr}	50				75			ns
Typical Junction Capacitance (Note 2)	C_J	17							pF
Typical Thermal Resistance Junction to Ambient (Note 3)	$R_{\theta JA}$	30							$^\circ C/W$
Operating Temperature Range	T_J	-55 to +150							$^\circ C$
Storage Temperature Range	T_{STG}	-55 to +150							$^\circ C$

- Note:
1. Reverse Recovery Test Conditions: $I_F = 0.5A$, $I_R = 1.0A$, $I_{RR} = 0.25A$.
 2. Measured at 1.0 MHz and Applied reverse Voltage of 4.0V D.C
 3. 8.0MM² (.013mm Thick) Land Areas.

FIG.1 MAXIMUM AVERAGE FORWARD CURRENT DERATING

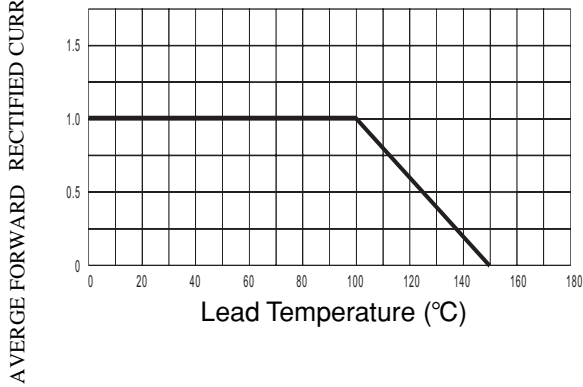


FIG.2 TYPICAL FORWARD CHARACTERISTICS

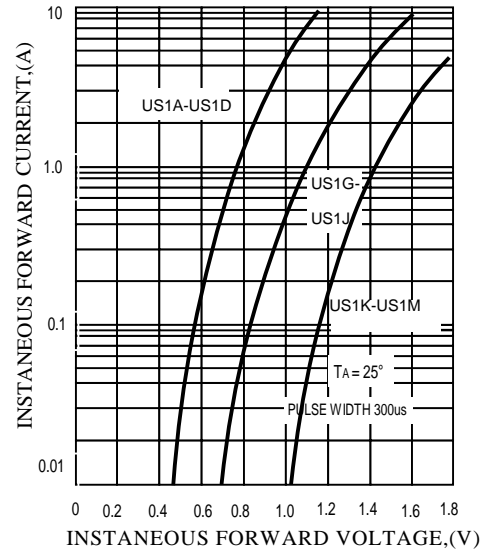


FIG.3 MAXIMUM NON-REPEITIVE SURGE CURRENT

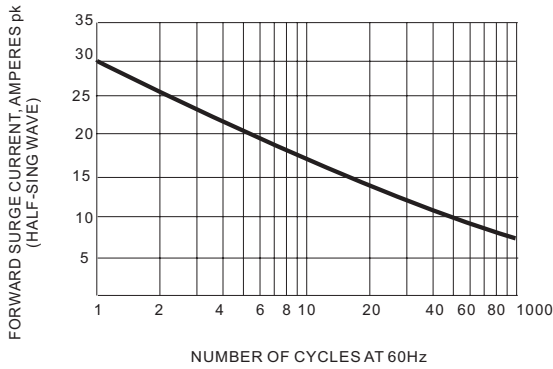


FIG.4 TYPICAL JUNCTION CAPACITANCE

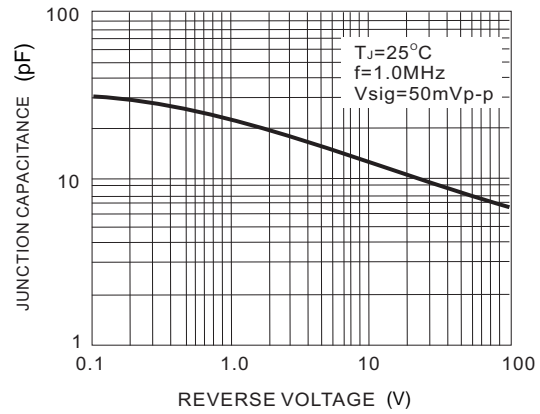
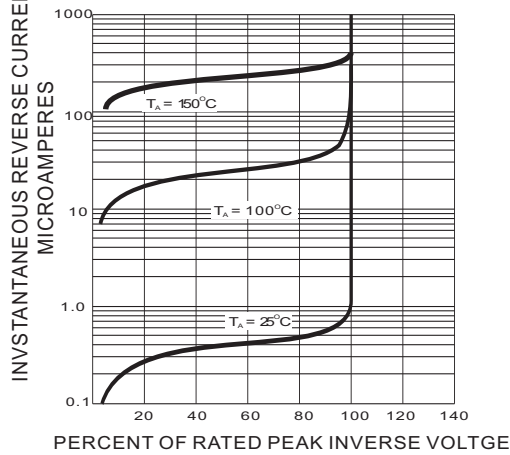
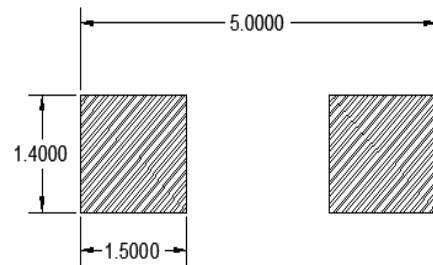


FIG.5 TYPICAL REVERSE CHARACTERISTICS



SMA PAD LAYOUT



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