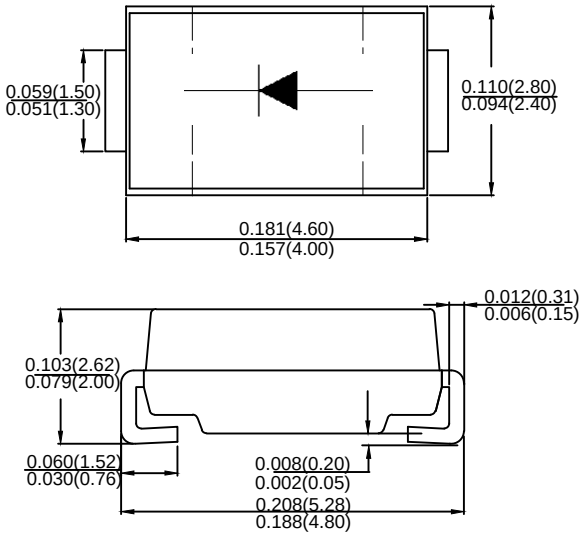
M1(H) THRU M7(H)

1.0AMP SURFACE MOUNT GLASS RECOVERY RECTIFIER

Features

- For surface mounted application
- Low forward voltage drop
- High current capability
- High reliability
- Classification Rating 94V- 0

SMA/DO-214AC



Dimensions in inches and (millimeters)

Mechanical Data

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

Maximum Ratings and Electrical Characteristics

Rating at 25℃ ambient temperature unless otherwise specified
Single phase,half wave,60Hz,resistive or inductive load
For capacitive load derate current by 20%

Type Number (Note 1)	SYMBOL	M1(H)	M2(H)	M3(H)	M4(H)	M5(H)	M6(H)	M7(H)	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℃	$IF_{(AV)}$	1.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave Superimposed On Rated Load (JEDEC Method)	I_{FSM}	30 24							A
Non-Repetitive Peak Forward Surge Current 1.0ms Single half sine-wave Superimposed On Rated Load (JEDEC Method)	I_{FSM}	60 48							A
10000 times of the wave surge current (time width 1ms, time interval 3s)	I_{FSM}	22.5							A
Rating for fusing (t<8.3ms)	I^2t	3.74							A^2s
Forward Voltage @IF=1.0A	V_{FM}	1.0							V
Peak Reverse Current @T_A =25℃	I_R	5.0							uA
At Rated DC Blocking Voltage @T_A =125℃		50							
Typical Junction Capacitance (Note 2)	C_J	12							pF
Typical reverse recovery time (Note 3)	t_{rr}	1.5							μs
Typical Thermal Resistance (Note 4)	$R_{\theta JL}$ $R_{\theta JA}$	23 57							℃/W
Operating and Storage Temperature Range	T_J,T_{STG}	-55 to+150							℃

Note: 1."H":Halogen Free.

2. Measured at 1.0 MHz and Applied reverse Voltage of 4.0V D.C
3. Reverse Recovery Test Conditions: I_F=0.5A, I_R=1.0A, I_{RR}=0.25A
4. Device mounted on FR-4 substrate, 1"*1", 2oz, single-sided, PC boards with 0.1"*0.15" copper pad.

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

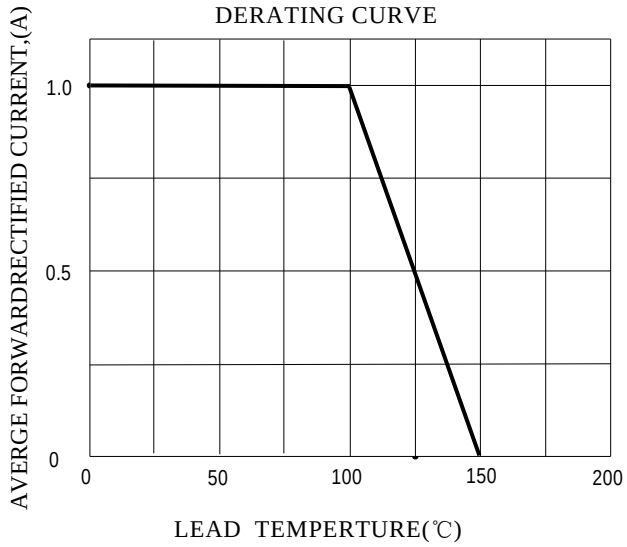


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

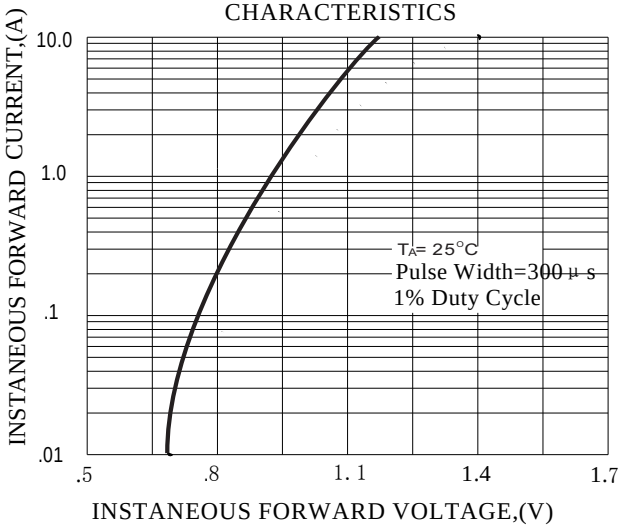


FIG.3-MAXIMUN NON-REPETITIVE FORWARD SURGE CURRENT

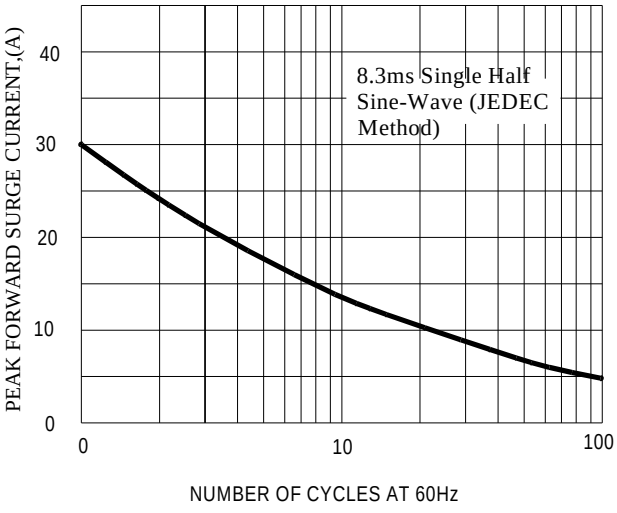


FIG.4-TYPICAL REVERSE CHARACTERISTICS

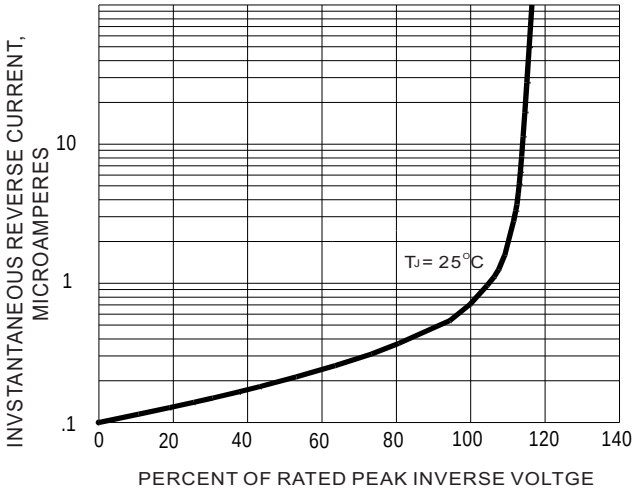
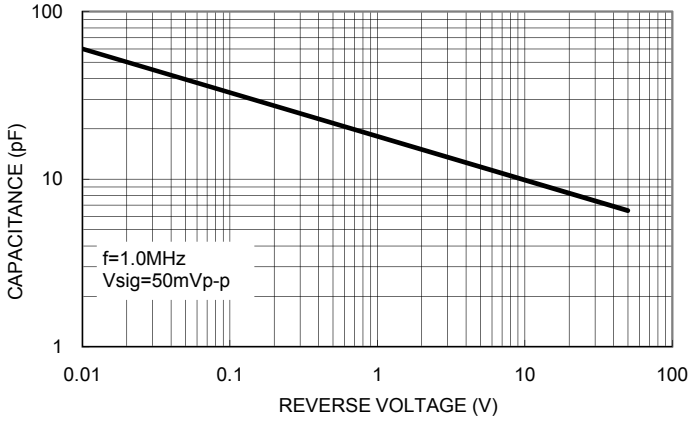
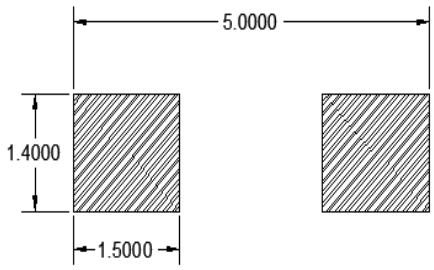


FIG. 5 TYPICAL JUNCTION CAPACITANCE



SMA PAD LAYOUT



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