SMA Plastic-Encapsulate Diodes

Case: Molded plastic

Epoxy: UL 94V-0 rate flame retardant

Terminals: Solder plated, solderable per MIL-STD-202F, method 208 guranteed

Polarity: Color band denotes cathode end

Mounting position: Any

Weight: 0.063 gram

SMA (DO-214AC)

• Features

- Ideal for surface mount applications
- Easy pick and place
- Built-in strain relief
- High surge current capability

• MAXIMUM RATINGS (T_C=25℃)

Parameter	Symbols	1N4001 M1	1N4002 M2	1N4003 M3	1N4004 M4	1N4005 M5	1N4006 M6	1N4007 M7	Units
Maximum Repetitive 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
Maximum Average Forward Rectified Current at T_c = 125 °C	$I_{F(AV)}$	1							A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	I_{FSM}	30							A
Maximum Instantaneous Forward Voltage at 1 A	V_F	1.1							V
Maximum DC Reverse Current T_a = 25 °C at Rated DC Blocking Voltage T_a =125 °C	I_R	5 50							μA
Typical Junction Capacitance (1)	C_j	15							pF
Typical Thermal Resistance (2)	$R_{\theta JA}$	90							°C/W
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150							°C

NOTES:

1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2. Thermal Resistance from Junction to Ambient.

• Typical Characteristics

FIG.1-TYPICAL FORWARD CHARACTERISTICS

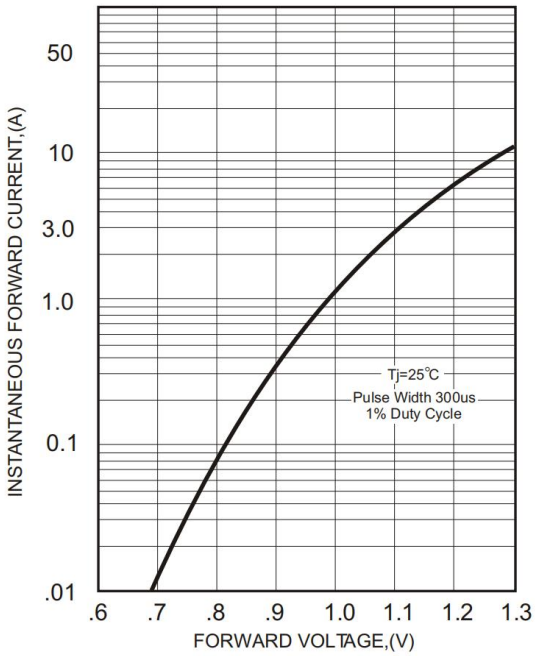


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

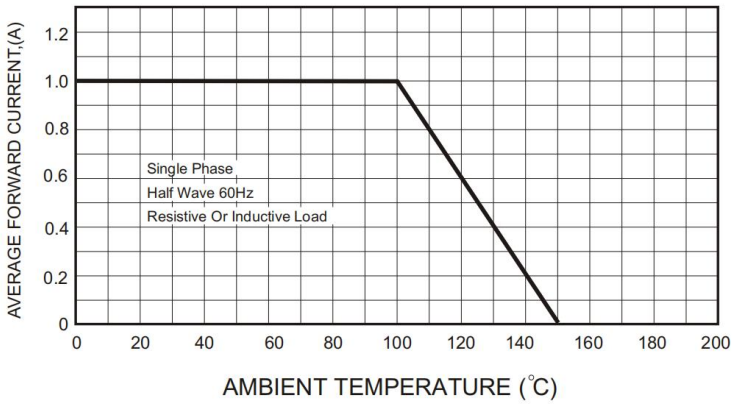


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

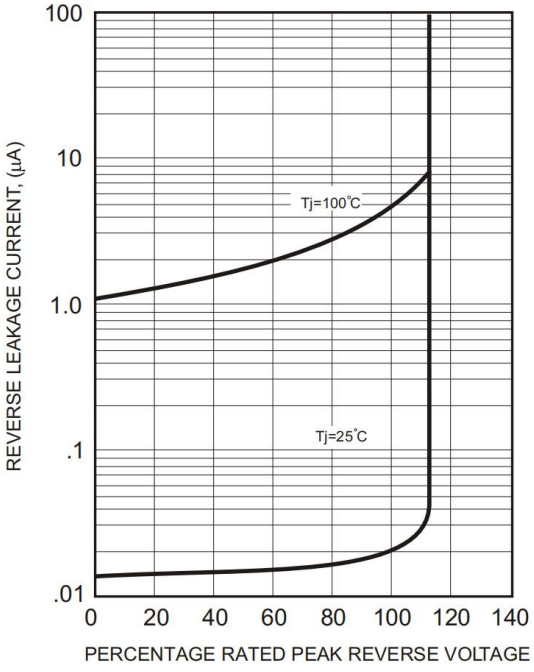


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

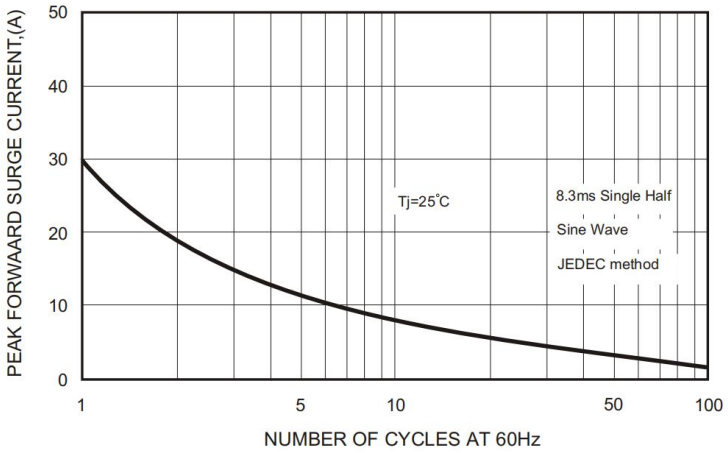
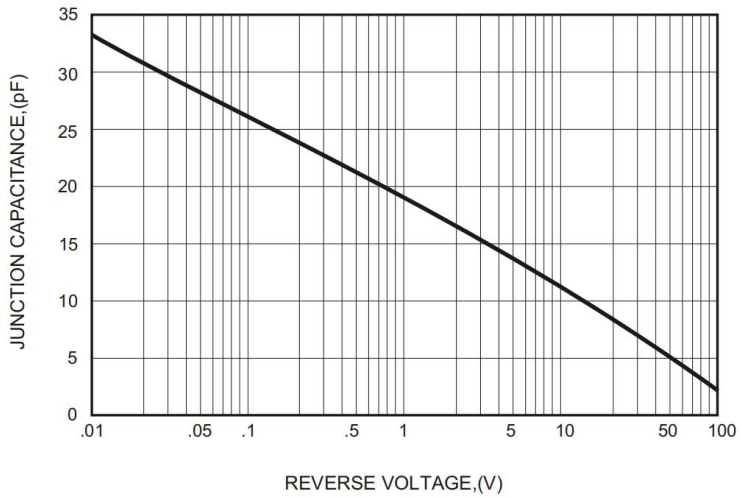
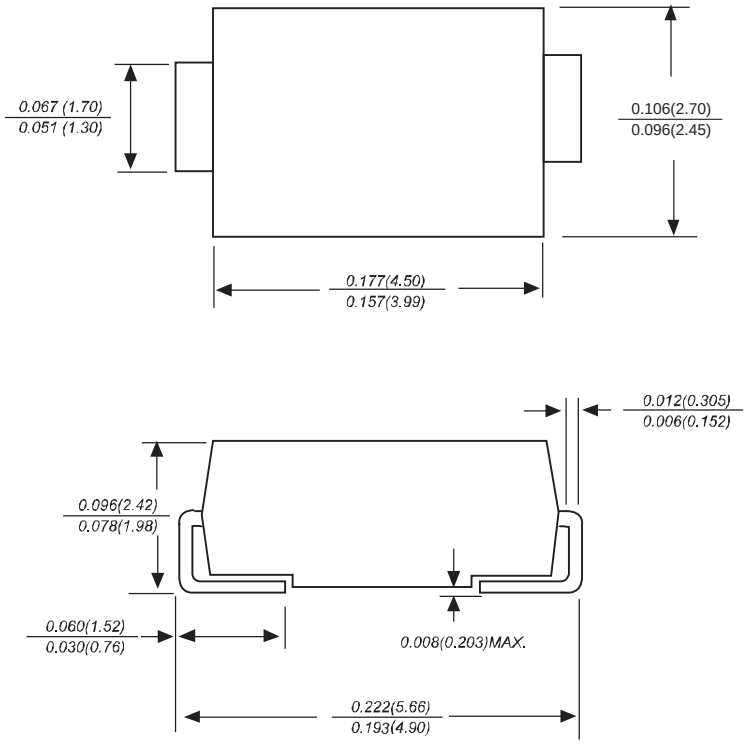


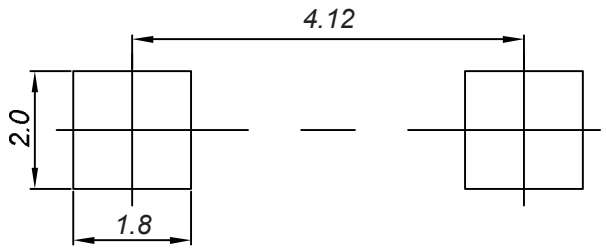
FIG.5-TYPICAL JUNCTION CAPACITANCE



SMA Package Outline Dimensions



Dimensions in inches and (millimeters)



Note:
1.Controlling dimension:in millimeters.
2.General tolerance:± 0.05mm.
3.The pad layout is for reference purposes only.