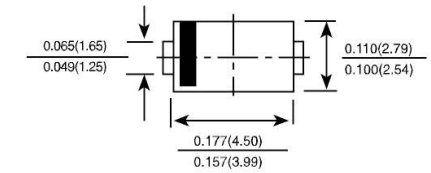
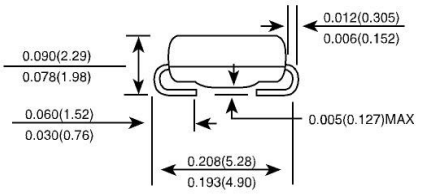
SURFACE MOUNT RECTIFIER

M1 THRU M7

FEATURES

- Glass passivated chip junction
- Ideal for surface mounted applications
- Low leakage
- High forward surge current capability.
- High temperature soldering guaranteed: 260℃/10 seconds at terminals.





DO-214AC
(SMA)

MECHANICAL DATA

- Case: Transfer molded plastic
- Epoxy: UL94V - 0 rate flame retardant.
- Polarity: Color band denotes cathode end
- Lead: Plated terminals solderable per MIL - STD - 202E method 208C
- Weight: 0.002 ounce, 0.057 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

	SYMBOLS	M1	M2	M3	M4	M5	M6	M7	UNITS
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current, at T_A = 75℃	$I_{(AV)}$	1.0							Amp
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30							Amps
Maximum Instantaneous Forward Voltage Drop at 1.0A	V_F	1.1							Volts
Maximum DC Reverse Current at rated DC blocking voltage — T_C = 25℃	I_R	5.0							μA
Maximum DC Reverse Current at rated DC blocking voltage — T_A = 125℃	I_R	50							μA
Maximum Full Load Reverse Current, full cycle average at T_A = 75℃	$I_{R(AV)}$	30							μA
Typical Junction Capacitance (Note 1)	C_J	15							pF
Typical Thermal Resistane (Note 2)	$R_{\theta JA}$	75							℃/w
Operating and Storage Temperature Range	T_J,T_{STG}	(-65 to +175)							℃

NOTES:

1. Measured at 1.0 MHz and applied aberage voltage of 4.0 volts.
2. 6.0 X 6.0mm^2 copper pads to each terminal.

RATINGS AND CHARACTERISTIC CURVES M1 THRU M7

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

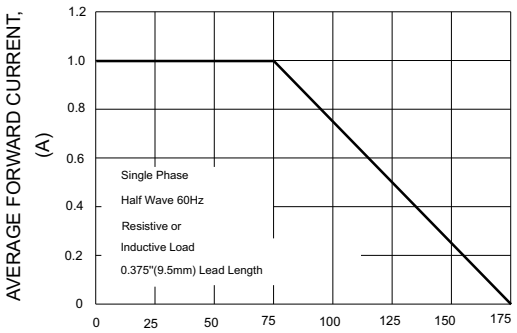


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

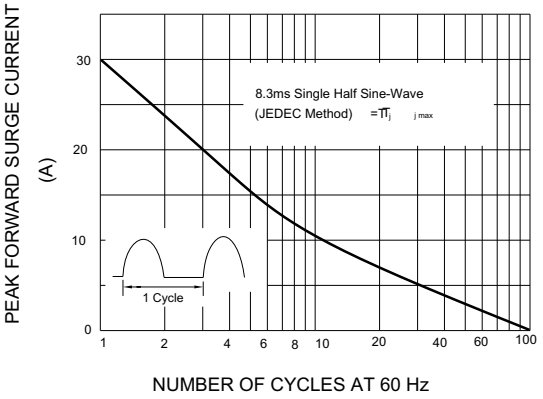


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

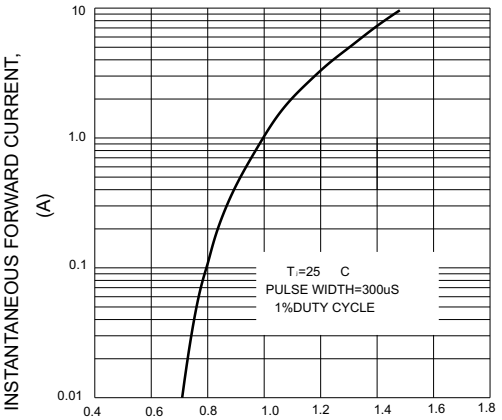


FIG.4-TYPICAL REVERSE CHARACTERISTICS

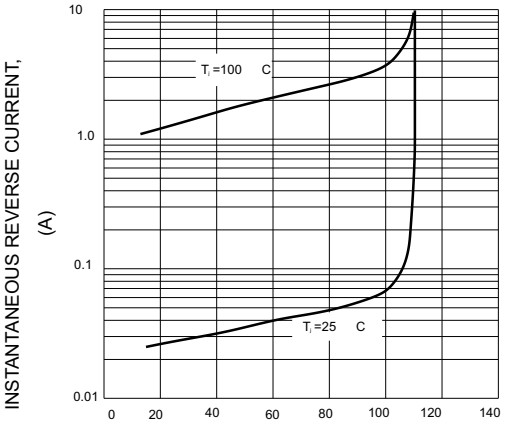


FIG.5-TYPICAL JUNCTION CAPACITANCE