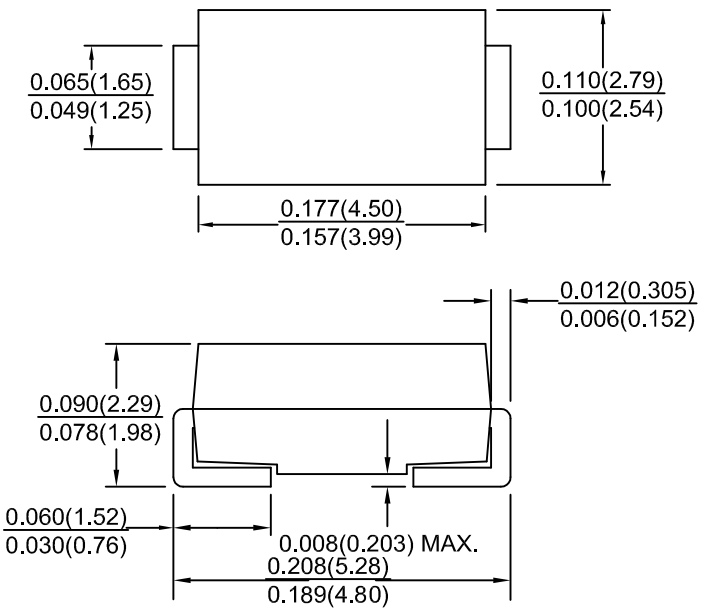
M1 THRU M7

SURFACE MOUNT GLASS PASSIVATED RECTIFIERS

FEATURES:

- Ideal for surface mount applications
- Easy pick and place
- Built-in strain relief
- Glass passivated Chip

SMA/DO-214AC



Dimensions in inches and (millimeters)

MECHANICAL DATA

Case : Molded plastic use UL 94V-0 recognized flame retardant epoxy

Terminals : Plated terminals,solderable per MIL-STD-202, Method 208

Polarity : White color band and logo on body denotes cathode

Mounting Position : Any

Weight : 0.063 grams, 0.0026 ounce

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25° C ambient temp. unless otherwise specified.

Single phase, half sine wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20 %.

Characteristic	Symbol	M1	M2	M3	M4	M5	M6	M7	Units
Maximum recurrent peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	520	700	Volts
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum average forward rectified current at TL=125° C	I_O	1.0							Amps
Peak forward surge current single sine-wave on rated load(JEDEC Method)	I_{FSM}	30.0							Amps
Maximum instantaneous forward voltage drop at 1.0 A	V_F	1.1							Volts
Maximum DC reverse current at rated DC blocking voltage Ta=25° C Ta=125° C	I_R	5.0 50.0							μ A
Typical thermal resistance	$R_{th\text{-}JA}$ $R_{th\text{-}JL}$	80 26							° C/W
Typical junction capacitance	C_j	15.0							pF
Operating junction temperature range	T_j	-65 to +175							° C
Storage temperature range	T_{stg}	-65 to +175							° C

FIG.1-DERATING CURVE FOR OUTPUT RECTIFIER CURRENT

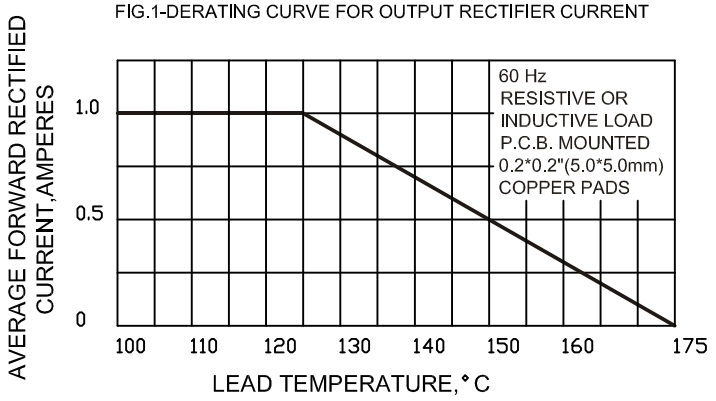


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

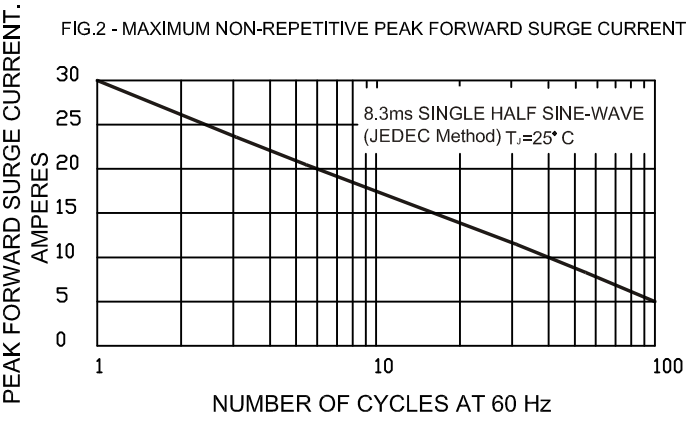


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

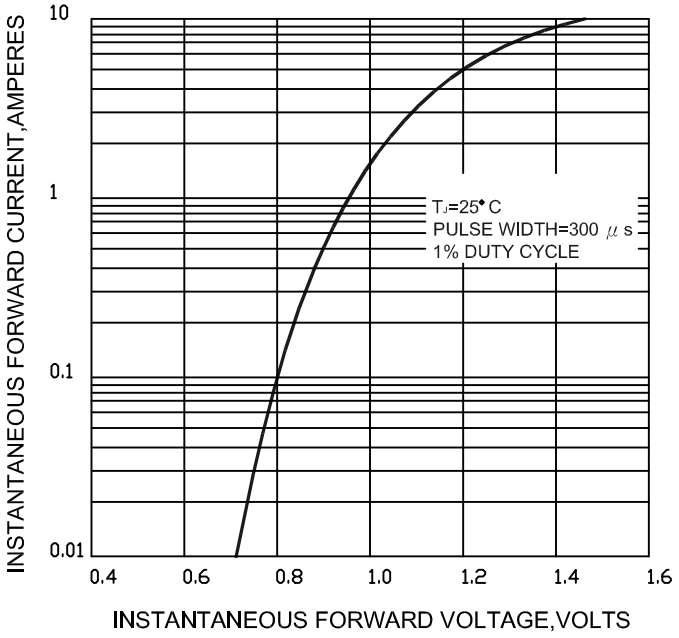


FIG.4-TYPICAL REVERSE CHARACTERISTICS

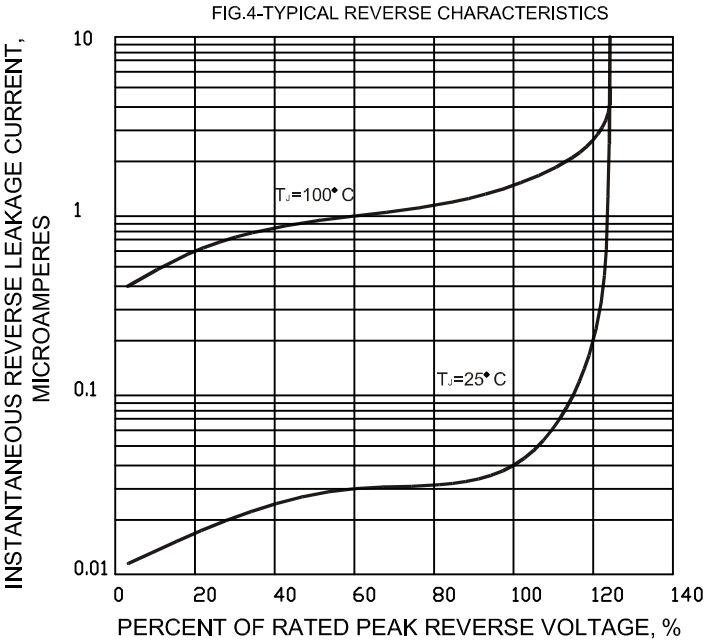


FIG.5-TYPICAL JUNCTION CAPACITANCE