

## FEATURES:

- Fast switching
- Glass passivated chip
- Ideal for surface mounted applications
- Low leakage current
- Metallurgically bonded construction

## MECHANICAL DATA

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

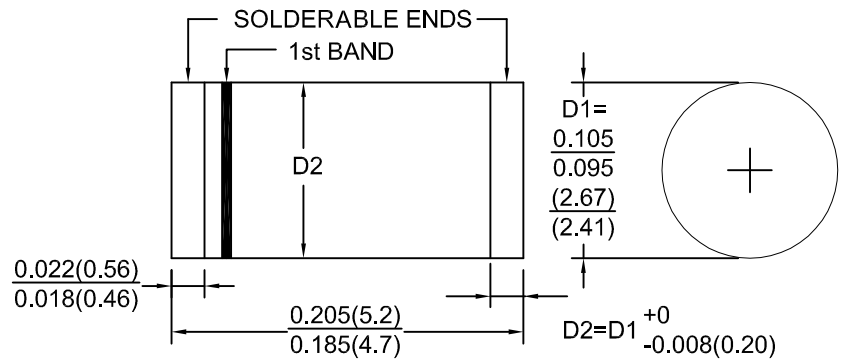
Terminals : Axial leads, solderable per MIL-STD-202, Method 208

Polarity : Color band on body denotes cathode end

Mounting Position : Any

Weight : 0.116 gram, 0.0046 ounce

## MELF/DO-213AB



1st band denotes type positive and (cathode)

Dimensions in inches and (millimeters)

## 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	FSM 101	FSM 102	FSM 103	FSM 104	FSM 105	FSM 106	FSM 107	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	560	700	Volts
Maximum DC blocking voltage	$V_{DC}$	50	100	200	400	600	800	1000	Volts
Maximum average forward rectified current at $T_a=55^\circ\text{C}$	$I_{(AV)}$	1.0							Amps
Peak forward surge current ,8.3ms single half sine-wave superimposed on rated load(JEDEC Method)	$I_{FSM}$	30.0							Amps
Maximum instantaneous forward voltage drop at 1.0 A	$V_F$	1.3							Volts
Maximum DC reverse current at rated DC blocking voltage $T_a=25^\circ\text{C}$ $T_a=125^\circ\text{C}$	$I_R$	5.0 100.0							$\mu\text{A}$
Maximum full load reverse current, full cycle average, $T_a=55^\circ\text{C}$	$I_{R(AV)}$	50.0							$\mu\text{A}$
Maximum reverse recovery time (note 1)	$t_{rr}$	150			250		500		nS
Typical junction capacitance (note 2)	$C_j$	15							pF
Typical thermal resistance	$R_{th-JA}$	75.0							$^\circ\text{C/W}$
	$R_{th-JL}$	30.0							
Operating junction and storage temperature range	$T_j, T_{stg}$	-65 to +150							$^\circ\text{C}$

NOTES:1. Reverse recovery test condition;  $I_F=0.5\text{A}$ ,  $I_R=1.0\text{A}$ ,  $I_{RR}=0.25\text{A}$

2. Measured at 1MHz and Applied reverse voltage of 4.0V.DC

# RATINGS AND CHARACTERISTIC CURVES FSM101 THRU FSM107

FIG.1-DERATING CURVE FOR OUTPUT RECTIFIER CURRENT

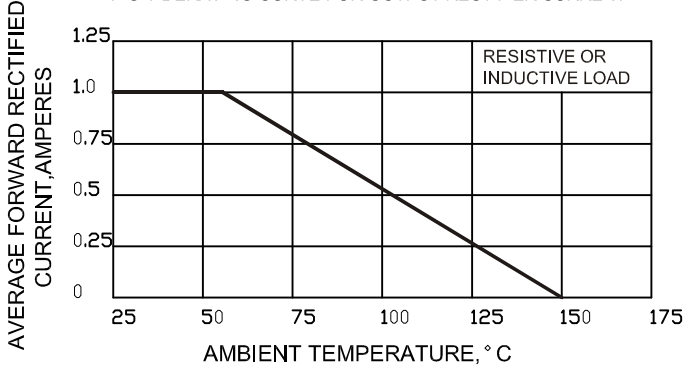


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

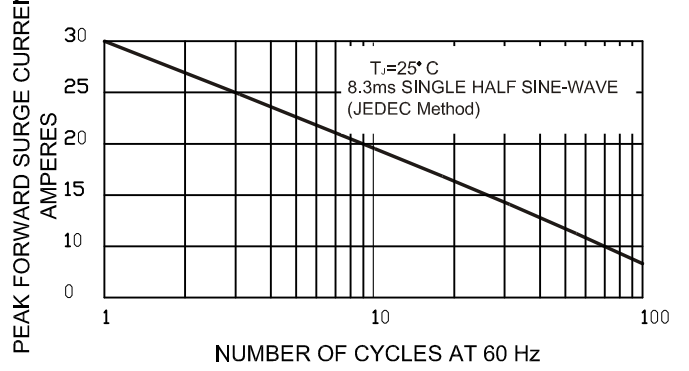


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

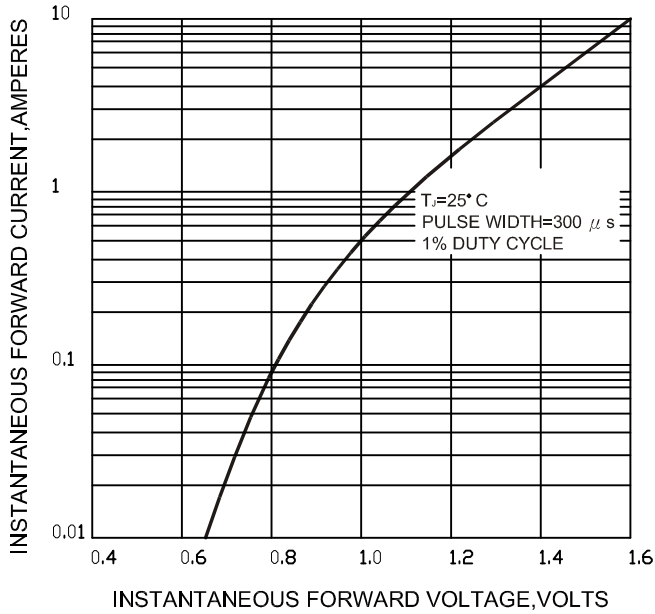


FIG.4-TYPICAL REVERSE CHARACTERISTICS

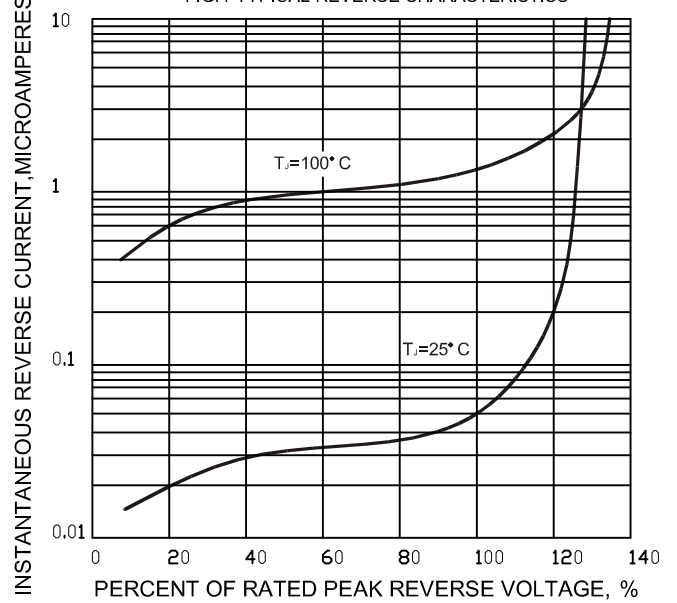


FIG.5-TYPICAL JUNCTION CAPACITANCE

