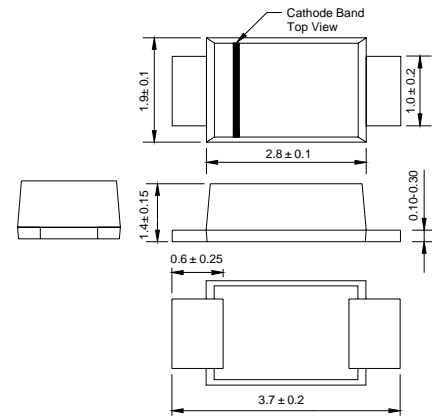




SOD-123FL



Features

- ◇ Batch process design, excellent power dissipation offers better reverse leakage current and thermal resistance.
- ◇ Low profile surface mounted application in order to optimize board space.
- ◇ Tiny plastic SMD package.
- ◇ High current capability.
- ◇ High surge capability.
- ◇ Glass passivated chip junction.

Mechanical data

- ◇ Case : Molded plastic, SOD-123FL
- ◇ Polarity : Indicated by cathode band
- ◇ Mounting Position : Any
- ◇ Weight : Approximated 0.01gram

Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Maximum ratings

PARAMETER	CONDITIONS	Symbol	MIN.	TYP.	MAX.	UNIT
Forward rectified current	See Fig.2	I_o			1.0	A
Forward surge current	8.3ms single half sine-wave superimposed on rate load (JEDEC method)	I_{FSM}			30	A
Reverse current	$V_R = V_{RRM} \quad T_A = 25^\circ\text{C}$	I_R			5.0	uA
	$V_R = V_{RRM} \quad T_A = 125^\circ\text{C}$				50	
Thermal resistance	Junction to ambient	$R_{\theta JA}$		60		°C/W
	Junction to case	$R_{\theta JC}$		30		
Diode junction capacitance	f=1MHz and applied 4V DC reverse voltage	C_J		15		pF
Storage temperature		T_{STG}	-65		+175	°C

SYMBOLS	V_{RRM}^{*1} (V)	V_{RMS}^{*2} (V)	V_R^{*3} (V)	V_F^{*4} (V)	Operating temperature T_J , (°C)
FM4001-M	50	35	50	1.10	-55 to +150
FM4002-M	100	70	100		
FM4003-M	200	140	200		
FM4004-M	400	280	400		
FM4005-M	600	420	600		
FM4006-M	800	560	800		
FM4007-M	1000	700	1000		

*1 Repetitive peak reverse voltage

*2 RMS voltage

*3 Continuous reverse voltage

*4 Maximum forward voltage

Rating and characteristic curves (FM4001-M THRU FM4007-M)

FIG.1-TYPICAL FORWARD CHARACTERISTICS

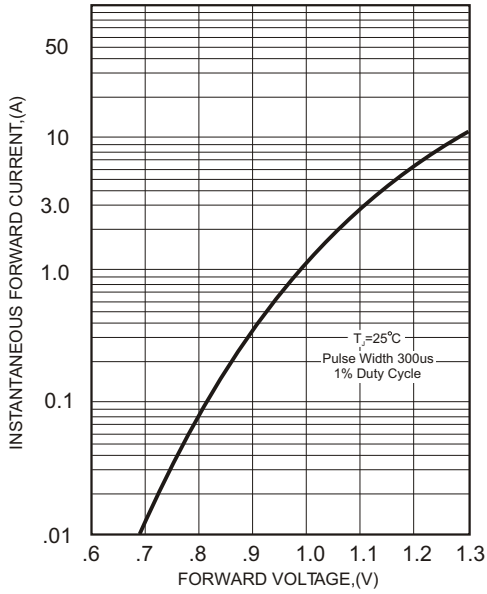


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

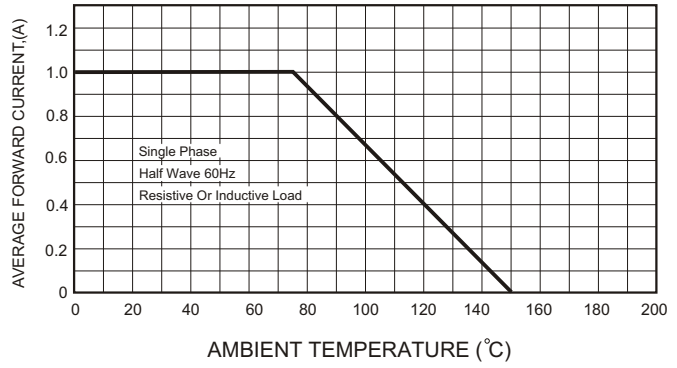


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

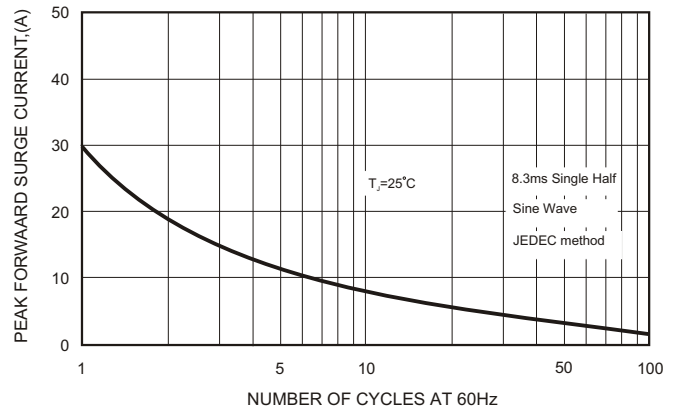


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

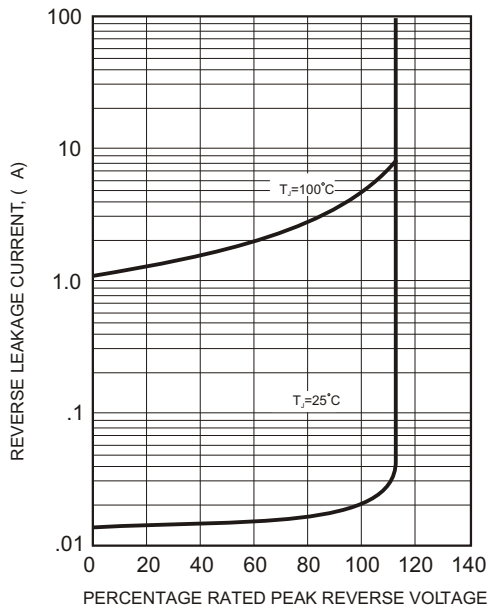


FIG.5-TYPICAL JUNCTION CAPACITANCE

