

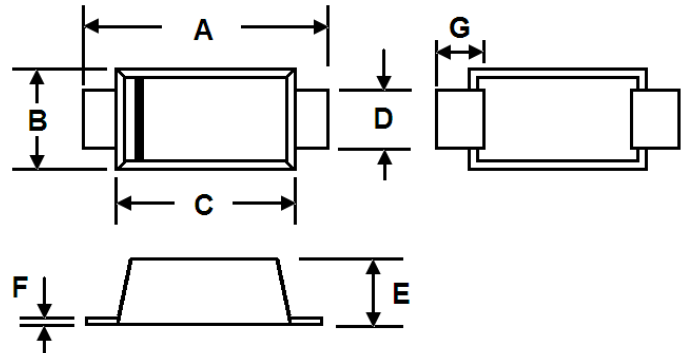
### Features

- \* Plastic package has Underwriters Laboratory
- \* For surface mounted application
- \* Extremely Low Thermal Resistance
- \* Easy Pick and Place
- \* Low leakage current.



### Package Outline Dimensions in inches (millimeters)

#### SOD-123F:



### Mechanical Data

- \* Case: Molded plastic
- \* Terminals: Solder plated
- \* Polarity: Indicated by cathode band
- \* Mounting Position: Any

DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	3.55	3.85	0.140	0.152
B	1.75	1.95	0.069	0.077
C	2.70	2.90	0.106	0.114
D	0.80	1.10	0.031	0.043
E	0.95	1.15	0.037	0.045
F	0.15	0.25	0.006	0.010
G	0.35	0.85	0.014	0.033

### Maximum Ratings and Electrical Characteristics

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

Type Number	Symbols	F1	F2	F3	F4	F5	F6	F7	Unit
Maximum Recurrent 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 D.C Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current $T_A=55^\circ\text{C}$	$I_{F(AV)}$	1.0							A
Peak Forward Surge Current, 8.3ms single half sine-wave	$I_{FSM}$	30							A
Maximum Instantaneous Forward Voltage at 1.0A(Note1)	$V_F$	1.3							V
Maximum D.C Reverse Current @ $T_A=25^\circ\text{C}$ at Rated D.C Blocking Voltage @ $T_A=125^\circ\text{C}$	$I_R$	5 50							$\mu\text{A}$
Maximum Reverse Recovery Time(Note2)	$T_{rr}$	150			250		500		nS
Typical Junction Capacitance(Note3)	$C_J$	15							pF
Typical Thermal Resistance	$R_{\theta JA}$	42							$^\circ\text{C/W}$
Operating and Storage Temperature Range	$T_J/T_{STG}$	-55 to +150							$^\circ\text{C}$

NOTE: 1、 Pulse test:  $t_p=300\mu\text{s}$ , 1% duty cycle 2、 Reverse Recovery Test Conditions:  $I_F=0.5\text{A}$ ,  $I_R=1.0\text{A}$ ,  $I_{RR}=0.25\text{A}$ .

3、 Measured at 1MHz and applied reverse voltage of 4.0V D.C.

### Ratings and Characteristic Curves

FIG.1-TYPICAL FORWARD CHARACTERISTICS

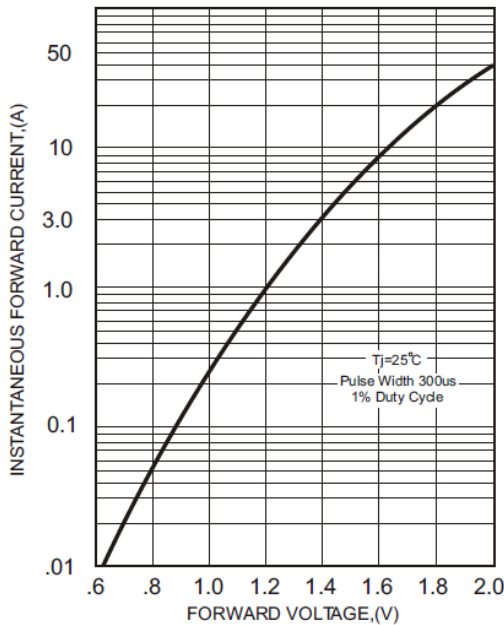


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

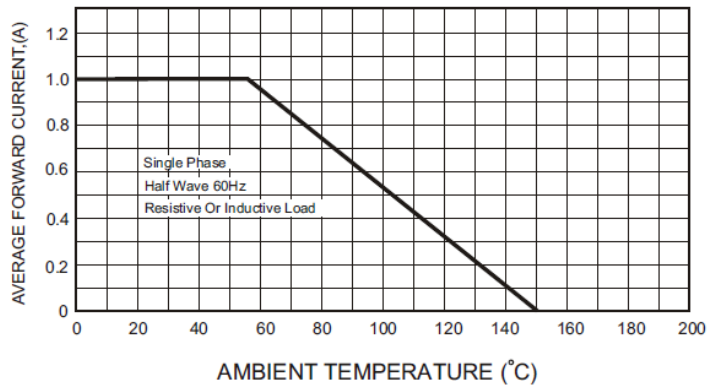


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

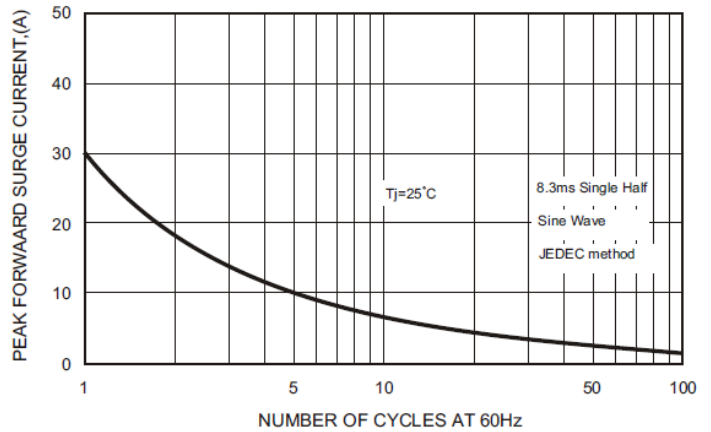
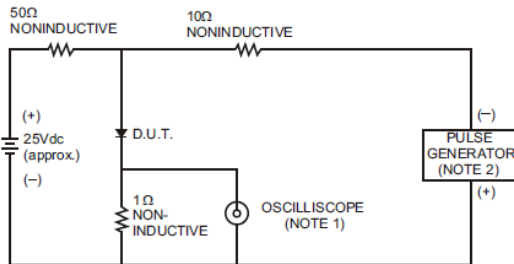


FIG.3- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



NOTES: 1. Rise Time= 7ns max., Input Impedance= 1 megohm, 22pF.

2. Rise Time= 10ns max., Source Impedance= 50 ohms.

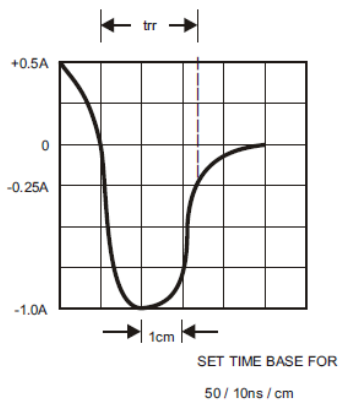
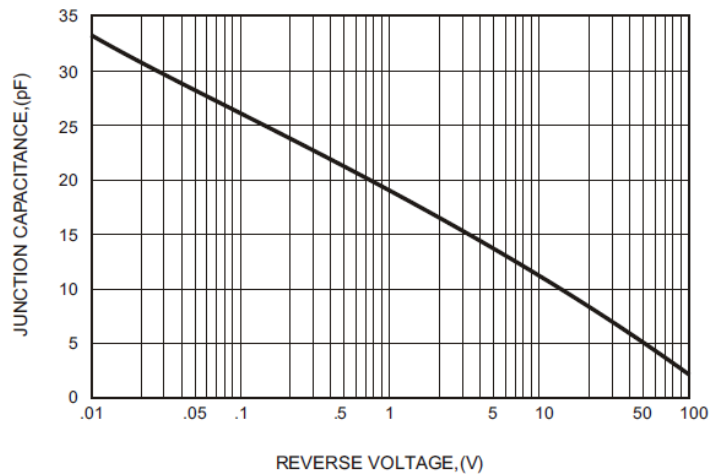


FIG.5-TYPICAL JUNCTION CAPACITANCE





# F1 THRU F7

*1.0 Amp. Glass Passivated Fast Recovery Rectifiers*

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## Ordering Information

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Part No.	Package	Packing
F1~F7	SOD-123F	3K/Reel