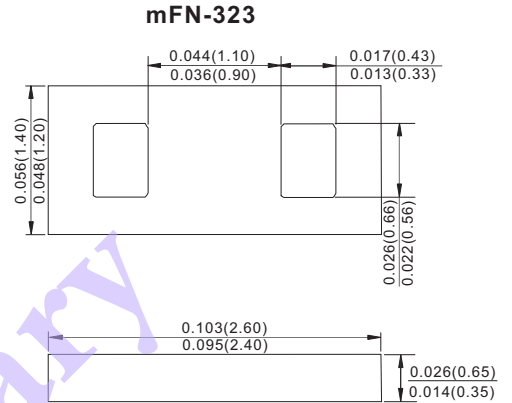


Features

- Low profile surface mounted application in order to optimize board space.
- mini Flat No-Lead Package.
- Glass passivated chip junction.
- **Pb-Free package is available**
RoHS product for packing code suffix "G"
Halogen free product for packing code suffix "H"
- **Polarity:** Color band denotes cathode end

Package outline



Dimensions in inches and (millimeters)

Mechanical data

- Epoxy:UL94-V0 rated flame retardant
- Case : mFN-323
- Mounting Position : Any

Maximum ratings and Electrical Characteristics (AT $T_A=25^\circ\text{C}$ unless otherwise noted)

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 methode)	I_{FSM}			30	A
Reverse current	$V_R = V_{RRM} T_J = 25^\circ\text{C}$	I_R			5.0	μA
Typical Diode junction capacitance	f=1MHz and applied 4V DC reverse voltage	C_J		25		pF
Storage temperature		T_{STG}	-65		+175	$^\circ\text{C}$

SYMBOLS	V_{RRM}^{*1} (V)	V_{RMS}^{*2} (V)	V_R^{*3} (V)	V_F^{*4} (V)	t_{rr}^{*5} (ns)	Operating temperature $T_J, (^\circ\text{C})$
SFM18-FN3	600	420	600	1.70	35	-55 to +150

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

*1 Maximun Repetitive peak reverse voltage

*2 Maximun RMS voltage

*3 Maximun DC Blocking Voltage

*4 Maximum forward voltage@ $I_F=1.0\text{A}$, $T_J=25^\circ\text{C}$

*5 Maximum Reverse recovery time, note 1

Rating and characteristic curves

FIG.1-TYPICAL FORWARD CHARACTERISTICS

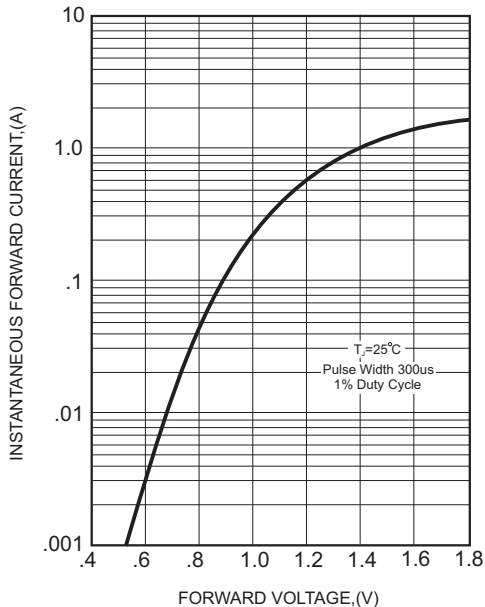


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

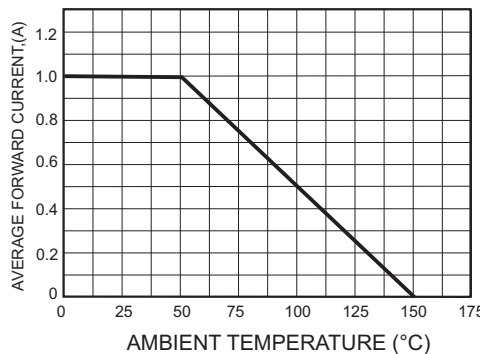


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

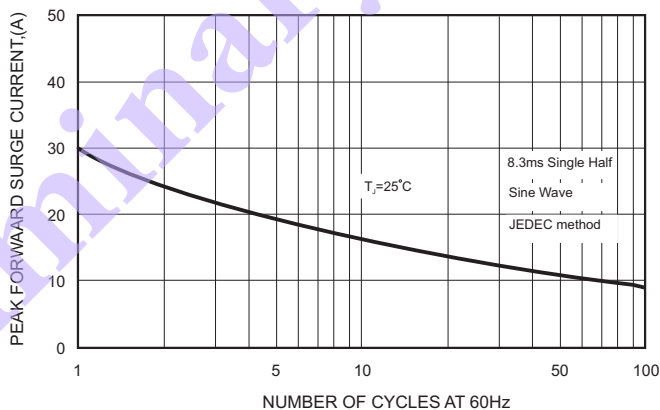
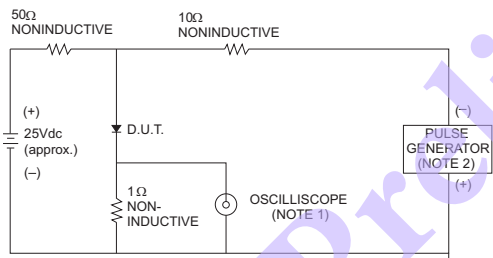


FIG.3- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



NOTES: 1. Rise Time= 7ns max., Input Impedance= 1 megohm.22pF.
2. Rise Time= 10ns max., Source Impedance= 50 ohms.

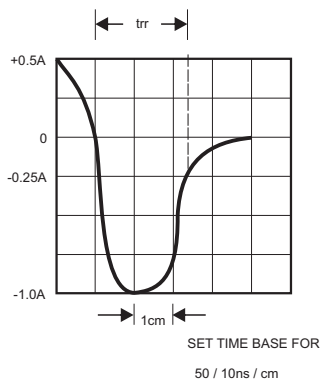
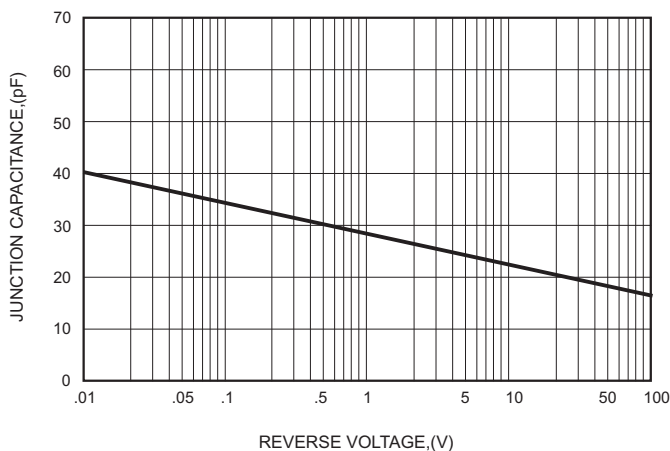
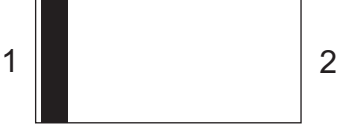



FIG.5-TYPICAL JUNCTION CAPACITANCE



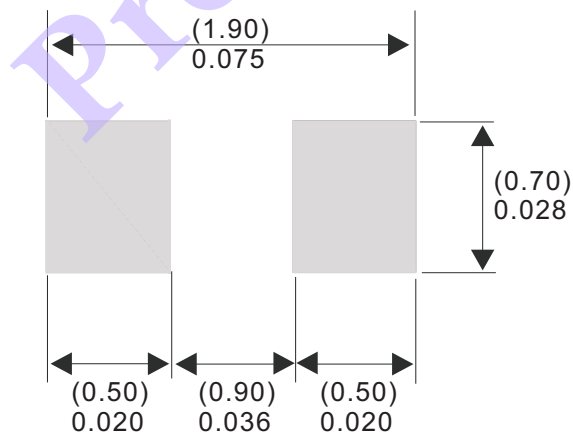
Pinning information

Pin	Simplified outline	Symbol
Pin1 cathode Pin2 anode		

Marking

Type number	Marking code
SFM18-FN3	S6

Suggested solder pad layout



Dimensions in inches and (millimeters)