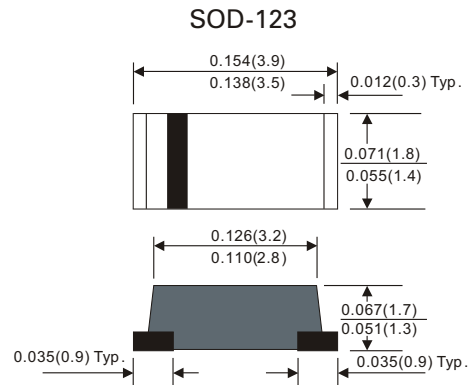


# SFM11-M thru SFM18-M

## SUPER FAST RECOVER TYPE



### FEATURES

- Plastic package has Underwriters Laboratory
- Flammability classification 94V-0 Utilizing Flame
- Retardant Epoxy Molding Compound
- For surface mount applications
- Exceeds environmental standards of MIL-S-19500/228
- Low leakage current.

### MECHANICAL DATA

Case : Molded plastic, SOD-123/MINI SMA  
 Terminals : Solder plated, solderable per MIL-STD-750, Method 2026  
 Polarity : Indicated by cathode band  
 Mounting Position : Any  
 Weight : 0.04grams

### MAXIMUM RATINGS (at $T_A=25^\circ\text{C}$ unless otherwise noted)

PARAMETER	CONDITIONS	SYMBOL	Min.	Typ.	Max.	UNITS
Forward rectified current	Ambient Thermal= $50^\circ\text{C}$	$I_o$			1.0	A
Forward surge current	8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	$I_{FSM}$			25	A
Reverse current	$V_R=V_{RRM}$ $T_A=25^\circ\text{C}$	$I_r$			5.0	$\mu\text{A}$
	$V_R=V_{RRM}$ $T_A=100^\circ\text{C}$				100	$\mu\text{A}$
Thermal resistance	Junction to ambient	$R_{JA}$		42		$^\circ\text{C} / \text{W}$
Diode junction capacitance	F=1MHz and applied 4vDC reverse voltage	$C_J$		10		pF
Storage temperature		$T_{STG}$	-55		+150	$^\circ\text{C}$

SYMBOLS	MARKING CODE	$V_{RRM}^{*1}$ (V)	$V_{RRM}^{*2}$ (V)	$V_{RRM}^{*3}$ (V)	$V_{RRM}^{*4}$ (V)	$V_{RRM}^{*5}$ (nS)	Operating Temperature ( $^\circ\text{C}$ )
SFM11-M	S1	50	35	50	0.95	35	-55 to + 150
SFM12-M	S2	100	70	100			
SFM13-M	S3	150	105	150			
SFM14-M	S4	200	140	200			
SFM15-M	S5	300	210	300	1.25		
SFM16-M	S6	400	280	400			
SFM17-M	S7	500	350	500			
SFM18-M	S8	600	420	600			

- \*1 Repetitive peak reverse peak reverse
- \*2 RMS voltage
- \*3 Continuous reverse voltage
- \*4 Maximum forward voltage
- \*5 Reverse recovery time

# SFM11-M thru SFM18-M

## SUPER FAST RECOVER TYPE

### RATING AND CHARACTERISTICS CURVES SFM11-M THRU SFM18-M

FIG.1-TYPICAL FORWARD CHARACTERISTICS

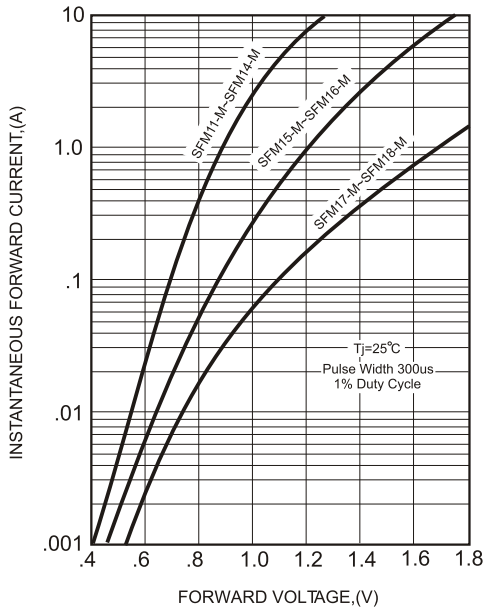


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

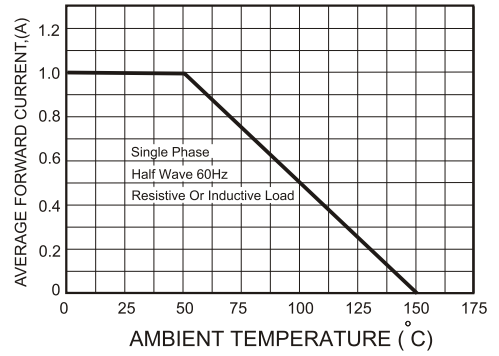


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

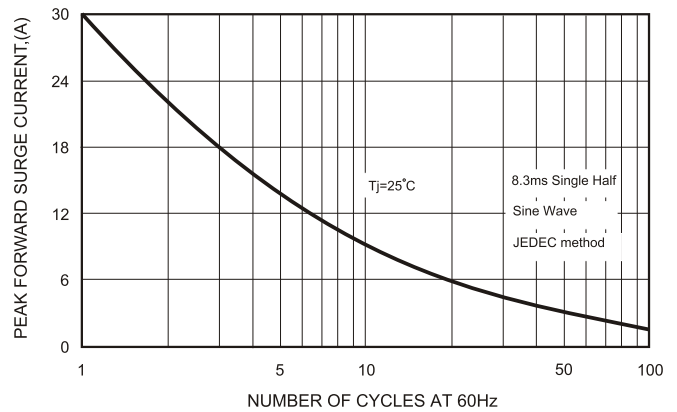
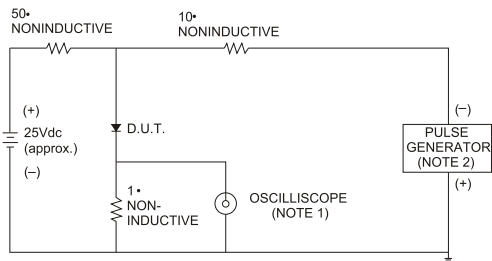


FIG.3- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



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

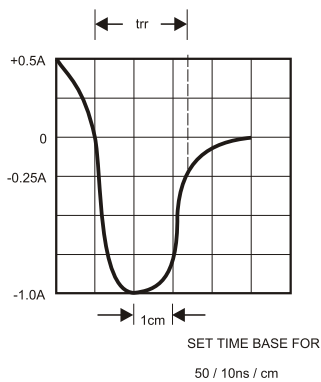


FIG.5-TYPICAL JUNCTION CAPACITANCE

