Chip Silicon Rectifier

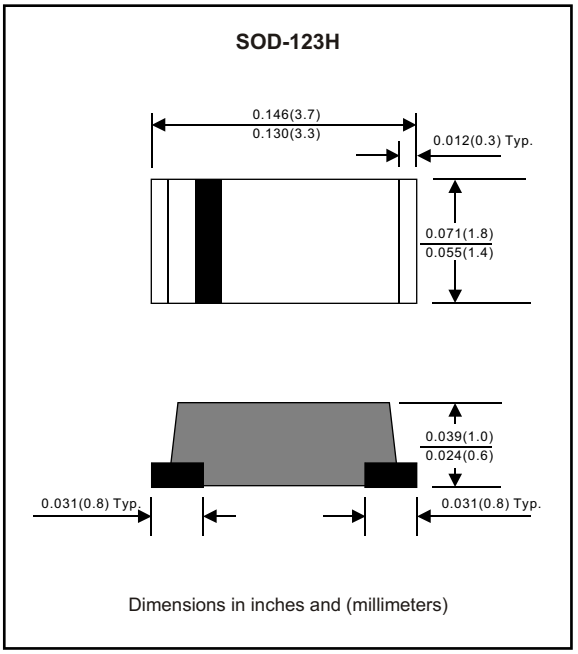
Formosa MS

SFM11-MH THRU SFM16-MH

Super fast recovery type

Features

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



Mechanical data

Case : Molded plastic, JEDEC SOD-123H
Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
Polarity : Indicated by cathode band
Mounting Position : Any
Weight : 0.0393 gram

MAXIMUM RATINGS (AT T_A=25°C unless otherwise noted)

PARAMETER	CONDITIONS	Symbol	MIN.	TYP.	MAX.	UNIT
Forward rectified current	Ambient temperature = 50°C	I_O			1.0	A
Forward surge current	8.3ms single half sine-wave superimposed on rate load (JEDEC methode)	I_{FSM}			25	A
Reverse current	V_R = V_{RRM} T_A = 25°C	I_R			5.0	uA
	V_R = V_{RRM} T_A = 100°C				100	uA
Thermal resistance	Junction to ambient	R_{JA}		42		°C / W
Diode junction capacitance	f=1MHz and applied 4vDC reverse voltage	C_J		10		pF
Storage temperature		T_{STG}	-55		+150	°C

SYMBOLS	MARKING CODE	V_{RRM} *1 (V)	V_{RMS} *2 (V)	V_R *3 (V)	V_F *4 (V)	T_{RR} *5 (nS)	Operating temperature (°C)
SFM11-MH	S1	50	35	50	0.95	35	-55 to +150
SFM12-MH	S2	100	70	100			
SFM13-MH	S3	150	105	150			
SFM14-MH	S4	200	140	200			
SFM15-MH	S5	300	210	300	1.25		
SFM16-MH	S6	400	280	400			

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

RATING AND CHARACTERISTIC CURVES (SFM11-MH THRU SFM16-MH)

FIG.1-TYPICAL FORWARD CHARACTERISTICS

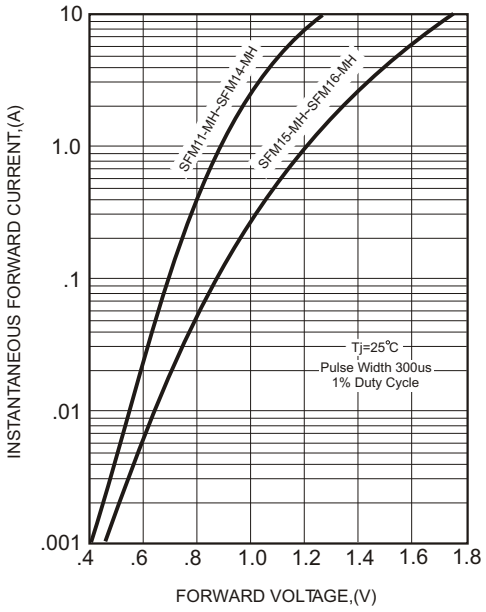


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

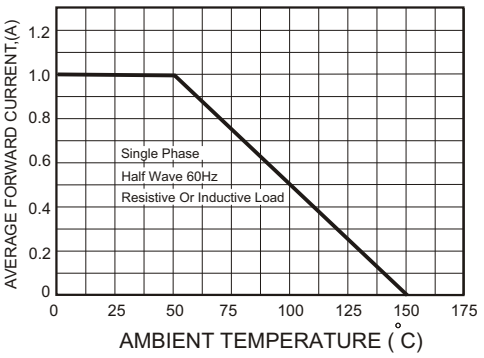
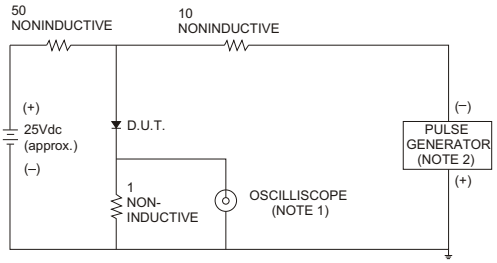


FIG.3- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



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

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

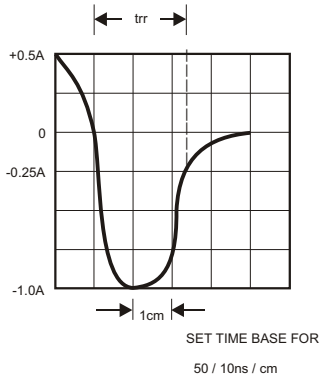


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

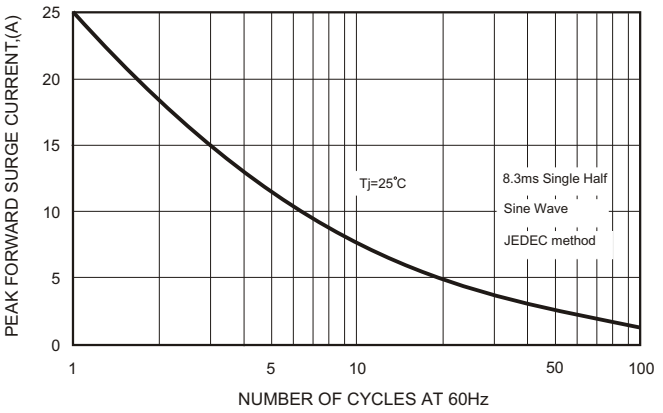


FIG.5-TYPICAL JUNCTION CAPACITANCE