

Chip Silicon Rectifier

Formosa MS

SFM31 THRU SFM36

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 ML-S-19500 / 228
- Low leakage current

Mechanical data

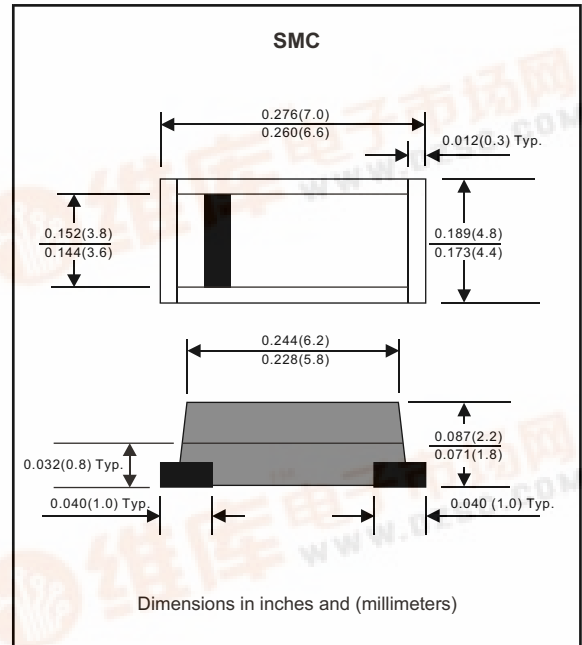
Case : Molded plastic, JEDECDO-214AB

Terminals : Solder plated, solderable per MIL-STD-750, Method 2026

Polarity : Indicated by cathode band

Mounting Position : Any

Weight : 0.00585 ounce, 0.195 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			3.0	A
Forward surge current	8.3ms single half sine-wave superimposed on rate load (JEDEC methode)	I _{FSM}			100	A
Reverse current	V _R = V _{RRM} T _A = 25°C	I _R			5.0	μA
	V _R = V _{RRM} T _A = 100°C				100	μA
Thermal resistance	Junction to ambient	R _{QJA}		16		°C / w
Diode junction capacitance	f=1MHz and applied 4vDC reverse voltage	C _J		45		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)
SFM31	S31	50	35	50	0.95	35	-55 to +150
SFM32	S32	100	70	100			
SFM33	S33	150	105	150			
SFM34	S34	200	140	200			
SFM35	S35	300	210	300	1.25		
SFM36	S36	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 (SFM31 THRU SFM36)

FIG.1-TYPICAL FORWARD CHARACTERISTICS

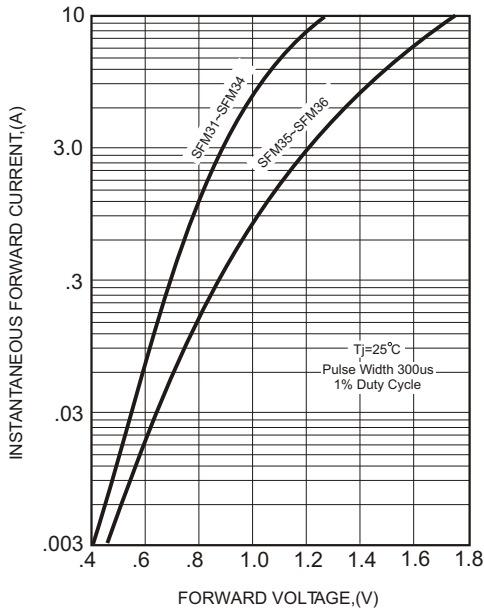


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

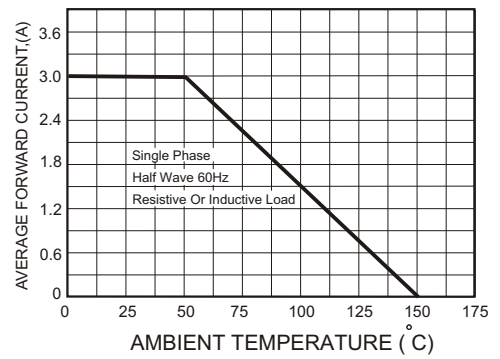
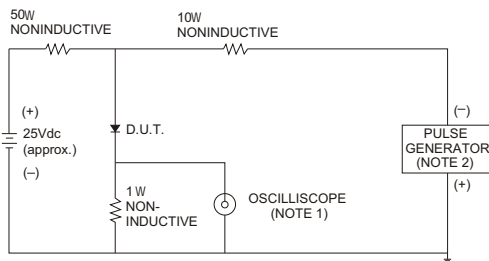


FIG.3- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



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

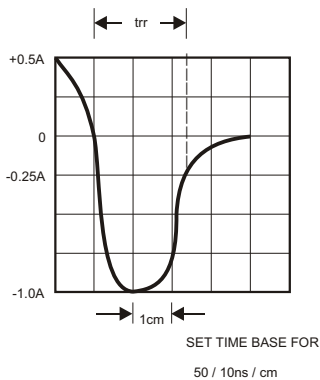


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

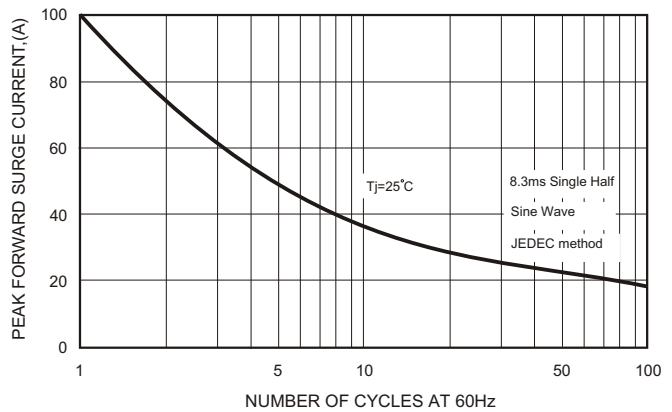


FIG.5-TYPICAL JUNCTION CAPACITANCE

