

Chip Silicon Rectifier

Formosa MS

HFM301 THRU HFM307

Ultra 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

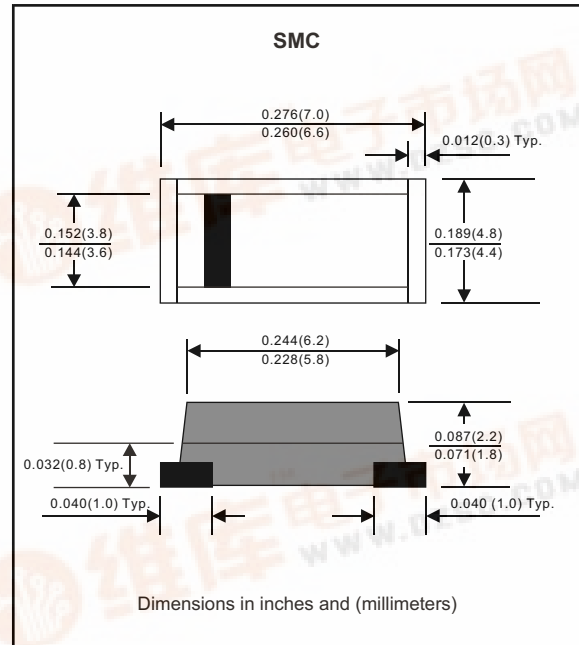
Case : Molded plastic, JEDECDO-214AB

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 = 55°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			10.0	μA
	V _R = V _{RRM} T _A = 100°C				300	μA
Thermal resistance	Junction to ambient	R _{QJA}		15		°C / w
Diode junction capacitance	f=1MHz and applied 4vDC reverse voltage	C _J		70		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)
HFM301	H31	50	35	50	1.0	50	-55 to +150
HFM302	H32	100	70	100			
HFM303	H33	200	140	200			
HFM304	H34	300	210	300	1.3	70	
HFM305	H35	400	280	400			
HFM306	H36	600	420	600	1.7	70	
HFM307	H37	800	560	800			

*1 Repetitive peak reverse voltage

*2 RMS voltage

*3 Continuous reverse voltage

*4 Maximum forward voltage

*5 Reverse recovery time



RATING AND CHARACTERISTIC CURVES (HFM301 THRU HFM307)

FIG.1-TYPICAL FORWARD CHARACTERISTICS

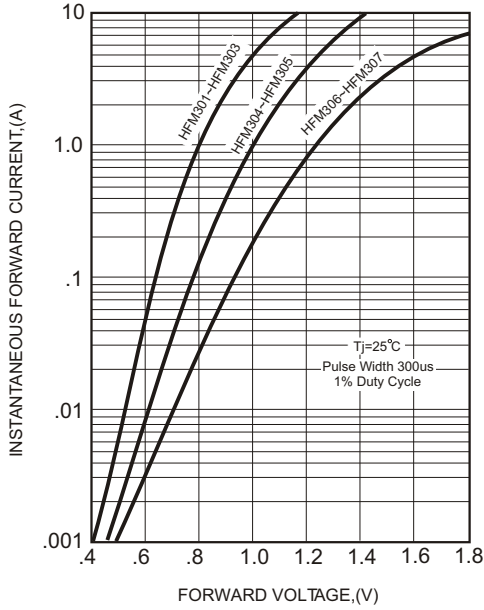


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

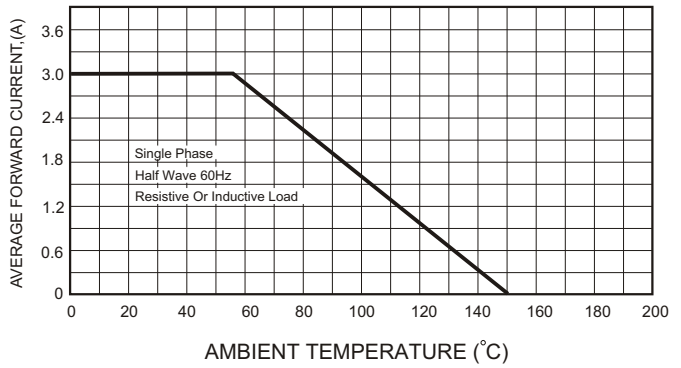
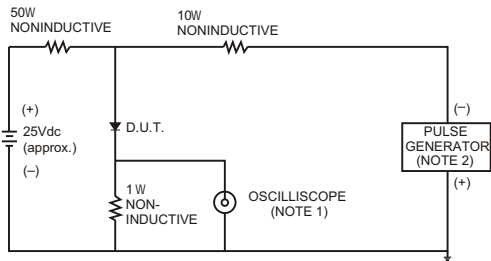


FIG.3- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



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

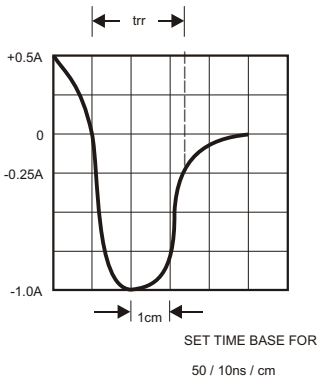


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

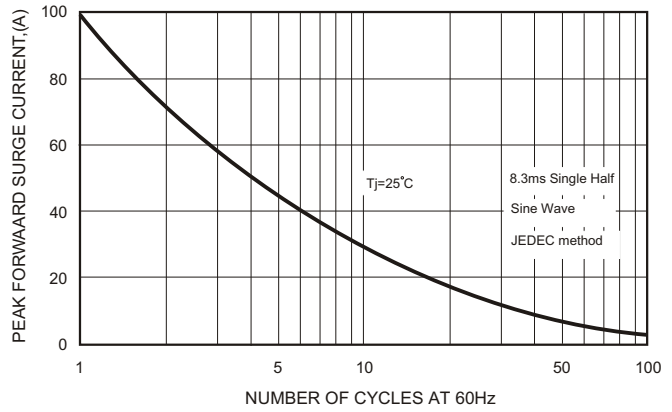


FIG.5-TYPICAL JUNCTION CAPACITANCE

