

# HFM101 thru HFM108

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 DO-214AC

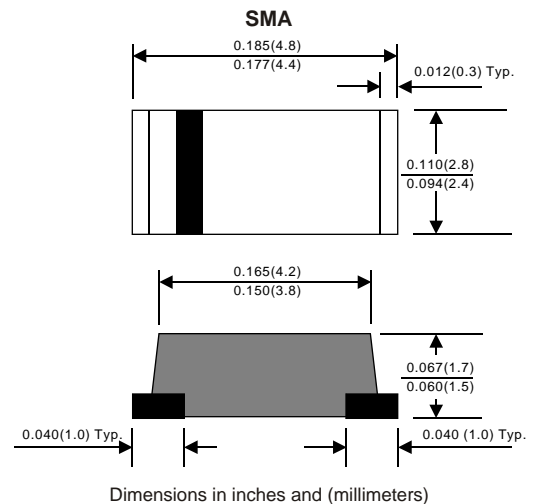
Terminals : Solder plated, solderable per MIL-STD-750, Method 2026

Polarity : Indicated by cathode band

Mounting Position : Any

Weight : 0.0015 ounce, 0.05 gram

### PATENT PUBLICATION NO. 37116



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

PARAMETER	CONDI TIONS	Symbol	MIN.	TYP.	MAX.	UNI T
Forward rectified current	Ambient temperature = $50^{\circ}\text{C}$	$I_O$			1.0	A
Forward surge current	8.3ms single half sine-wave superimposed on rate load (JEDEC methode)	$I_{FSM}$			30	A
Reverse current	$V_R = V_{RRM}$ $T_A = 25^{\circ}\text{C}$	$I_R$			5.0	$\mu\text{A}$
	$V_R = V_{RRM}$ $T_A = 100^{\circ}\text{C}$				150	$\mu\text{A}$
Thermal resistance	Junction to ambient	$R_{qJA}$		32		$^{\circ}\text{C} / \text{w}$
Diode junction capacitance	$f=1\text{MHz}$ and applied 4vDC reverse voltage	$C_J$		20		pF
Storage temperature		$T_J$	-55		+150	$^{\circ}\text{C}$

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)
HFM101	H11	50	35	50	1.0	50	-55 to +150
HFM102	H12	100	70	100			
HFM103	H13	200	140	200			
HFM104	H14	300	210	300	1.3		
HFM105	H15	400	280	400			
HFM106	H16	600	420	600	1.85	70	
HFM107	H17	800	560	800			
HFM108	H18	1000	700	1000			

\*1 Repetitive peak reverse voltage

\*2 RMS voltage

\*3 Continuous reverse voltage

\*4 Maximum forward voltage

\*5 Reverse recovery time

RATING AND CHARACTERISTIC CURVES (HFM101 THRU HFM108)

FIG.1-TYPICAL FORWARD CHARACTERISTICS

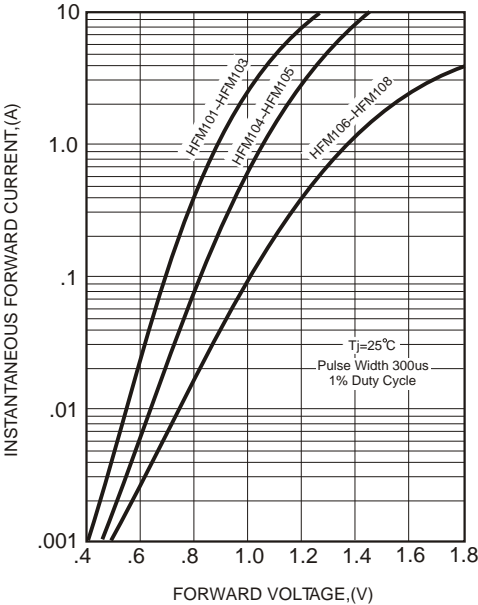


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

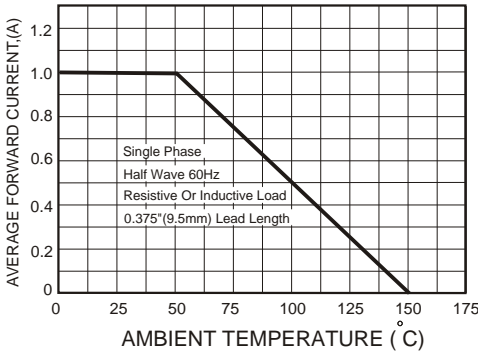
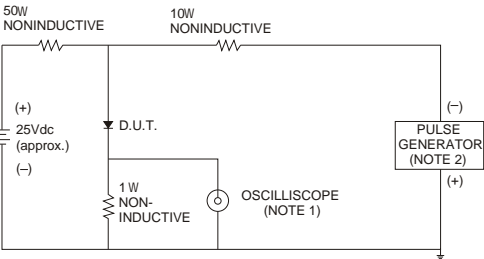


FIG.3- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



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

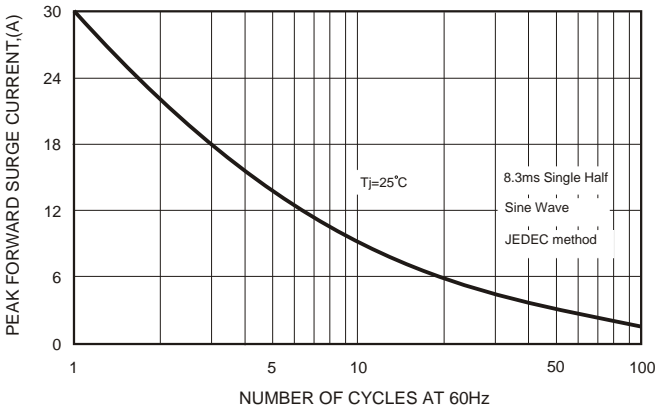


FIG.5-TYPICAL JUNCTION CAPACITANCE

