



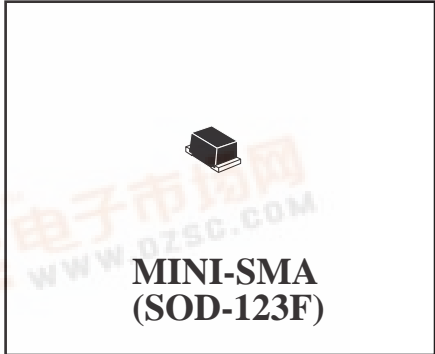
**HFM101M thru  
HFM107M**

## Surface Mount Ultra Fast Recovery Rectifiers

### Features:

- \*For Surface Mount Application
- \*Glass Passivated Chip
- \*Low Reverse Leakage Current
- \*Low Forward Voltage Drop And High Current Capability
- \*Plastic Material Has UL Flammability Classification 94V-0

**REVERSE VOLTAGE  
50 TO 1000 VOLTS  
FORWARD CURRENT  
1.0 AMPERE**

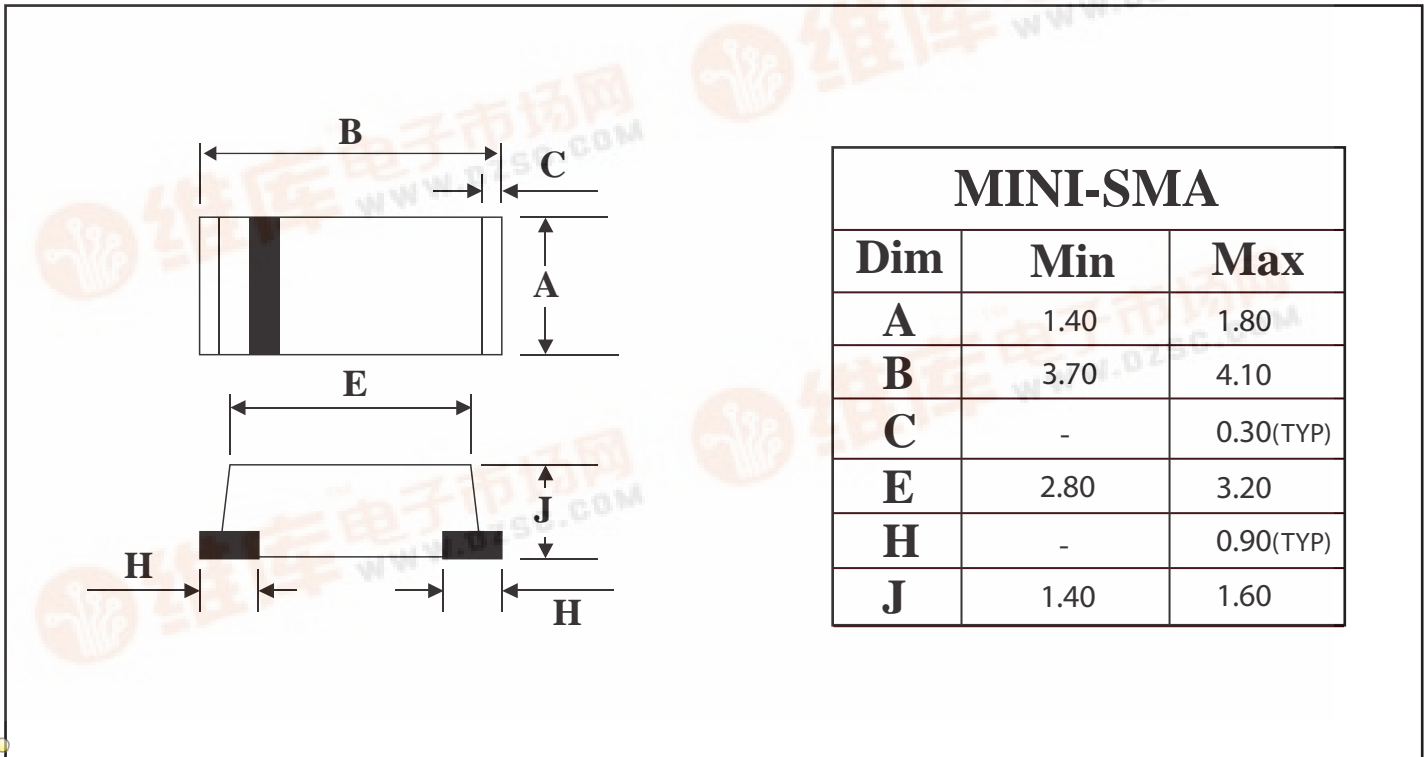


### Mechanical Data:

- \* Case: Molded Plastic, MINI-SMA(Similar to SOD-123F)
- \* Terminals: Solder Plated, Solderable per ML-STD-750 Method 2026
- \* Polarity: Indicated by Cathode Band
- \* Wight: 0.040 grams

## MINI-SMA Outline Dimension

unit:mm



## Maximum Ratings and Electrical Characteristics

Rating 25°C Ambient Temperature Unless Otherwise Specified.

Single Phase Half Wave, 60Hz , Resistive or Inductive Load.

For Capacitive Load, Derate Current by 20%.

Characteristics	Symbol	HFM 101M	HFM 102M	HFM 103M	HFM 104M	HFM 105M	HFM 106M	HFM 107M	Unit
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current @T <sub>A</sub> =50°C	I <sub>F(AV)</sub>	1.0							A
Peak Forward Surge Current, 8.3 ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I <sub>FSM</sub>	30							A
Maximum Instantaneous At 1.0A DC	V <sub>F</sub>	1.0		1.3		1.7		V	
Maximum DC Reverse Current @T <sub>A</sub> =25°C At Rated DC Blocking Voltage @T <sub>A</sub> =100°C	I <sub>R</sub>	5.0 150							uA
Maximum Reverse Recovery Time	T <sub>RR</sub>	50			75				ns
Typical Junction Capacitance (Note 1)	C <sub>J</sub>	20(TYP)							Pf
Typical Thermal Resistance (Note 2)	R <sub>θJA</sub>	42(TYP)							°C/W
Operating Temperature Range	T <sub>J</sub>	-55 to+150							°C
Storage Temperature Range	T <sub>STG</sub>	-55 to+150							°C

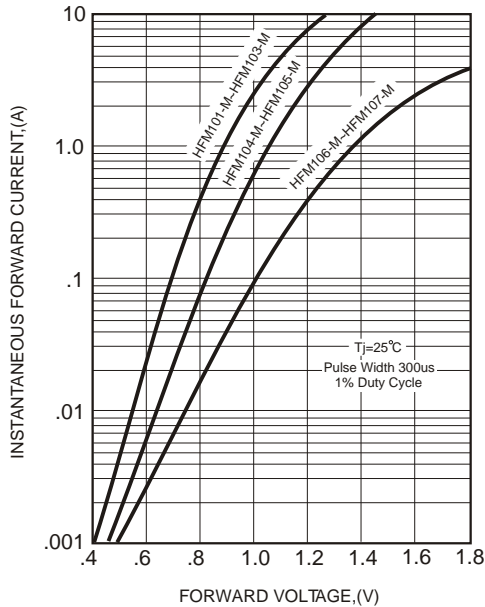
NOTES: 1.Measured at 1.0MHz applied reverse voltage of 4.0V DC.

2.Thermal Resistance Junction to Ambient.

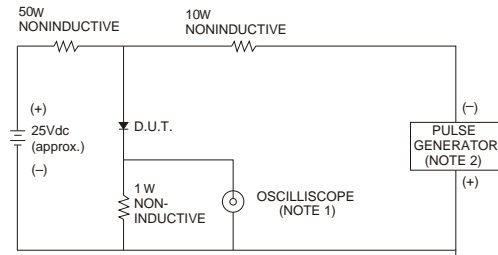
## Device Marking

Item	Marking	Item	Marking
HFM101M	H1	HFM105M	H5
HFM102M	H2	HFM106M	H6
HFM103M	H3	HFM107M	H7
HFM104M	H4		

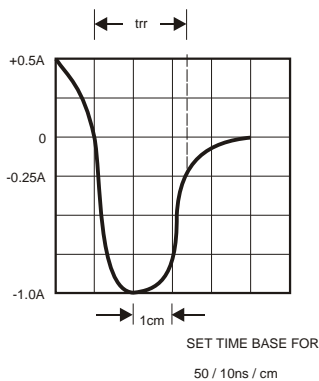
## RATING AND CHARACTERISTIC CURVES



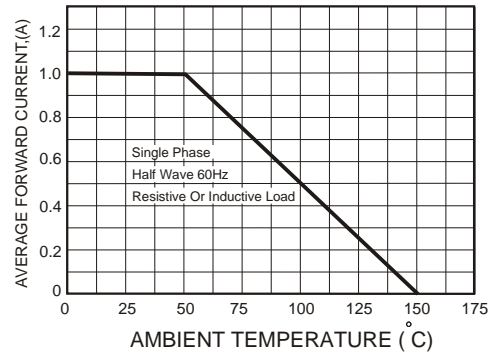
**FIG.1-Typical Forward Characteristics**



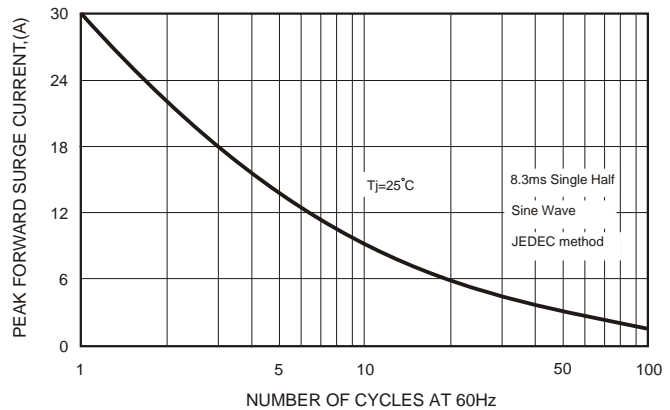
NOTES: 1. Rise Time= 7ns max., Input Impedance= 1 megohm.22pF.  
2. Rise Time= 10ns max., Source Impedance= 50 ohms.



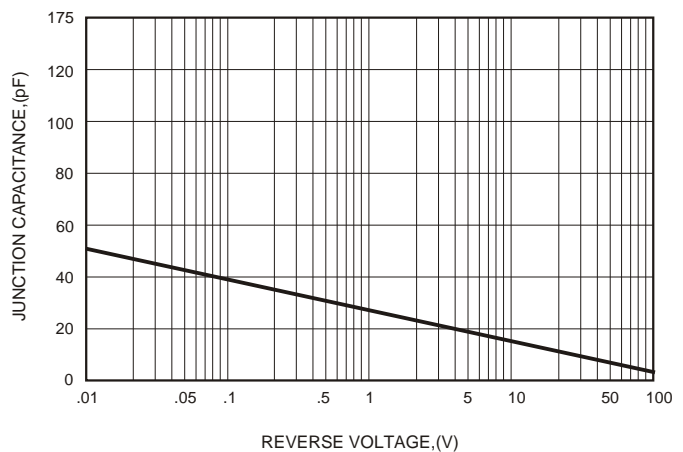
**FIG.3- Test Circuit Diagram and Reverse Recovery Time Characteristics**



**FIG.2-Typical Forward Current Derating Curve**



**FIG.4-Maximum Non-repetitive Forward Surge Current**



**FIG.5-Typical Junction Capacitance**