

**SURFACE MOUNT GLASS PASSIVATED
HIGH EFFICIENCY SILICON RECTIFIER**
VOLTAGE RANGE 50 to 1000 Volts CURRENT 1.0 Ampere

FEATURES

- * Glass passivated device
- * Ideal for surface mounted applications
- * Low leakage current
- * Metallurgically bonded construction
- * Mounting position: Any
- * Weight: 0.057 gram

MECHANICAL DATA

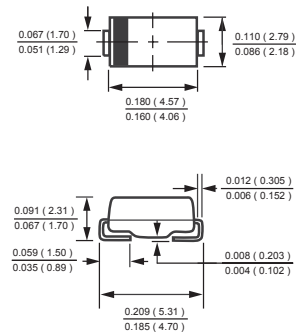
- * Epoxy: Device has UL flammability classification 94V-O

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.
Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%.



DO-214AC



Dimensions in inches and (millimeters)

MAXIMUM RATINGS (@ TA=25 °C unless otherwise noted)

RATINGS	SYMBOL	HFM101	HFM102	HFM103	HFM104	HFM105	HFM106	HFM107	HFM108	UNITS	
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	100	200	300	400	600	800	1000	Volts	
Maximum RMS Voltage	V _{RMS}	35	70	140	210	280	420	490	700	Volts	
Maximum DC Blocking Voltage	V _{DC}	50	100	200	300	400	600	800	1000	Volts	
Maximum Average Forward Rectified Current at T _A = 50°C	I _O	1.0								Amps	
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	30								Amps	
Typical Thermal Resistance (Note 1)	R _{θJL}	27								°C/W	
Typical Thermal Resistance (Note 1)	R _{θJA}	75								°C/W	
Typical Junction Capacitance (Note 2)	C _J	15					12				pF
Operating Temperature Range	T _J	150								°C	
Storage Temperature Range	T _{STG}	-55 to + 150								°C	

ELECTRICAL CHARACTERISTICS (@TA=25 °C unless otherwise noted)

CHARACTERISTICS		SYMBOL	HFM101	HFM102	HFM103	HFM104	HFM105	HFM106	HFM107	HFM108	UNITS
Maximum Instantaneous Forward Voltage at 1.0A DC		V _F	1.0			1.3		1.7			Volts
Maximum Full Load Reverse Current, Full cycle Average T _A =55°C		I _R	50								μA
Maximum Average Reverse Current	@T _A = 25°C		5								μA
at Rated DC Blocking Voltage	@T _A = 125°C		100								μA
Maximum Reverse Recovery Time (Note 4)		t _{rr}	50					75			nSec

NOTES : 1. Thermal Resistance : Mounted on PCB.

2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.

3. "Fully ROHS compliant", "100% Sn plating (Pb-free)".

4. Test Conditions: $I_F = 0.5\text{A}$, $I_R = -1.0\text{A}$, $I_{RR} = -0.25\text{A}$.

2006-11

RATING AND CHARACTERISTICS CURVES (HFM101 THRU HFM108)

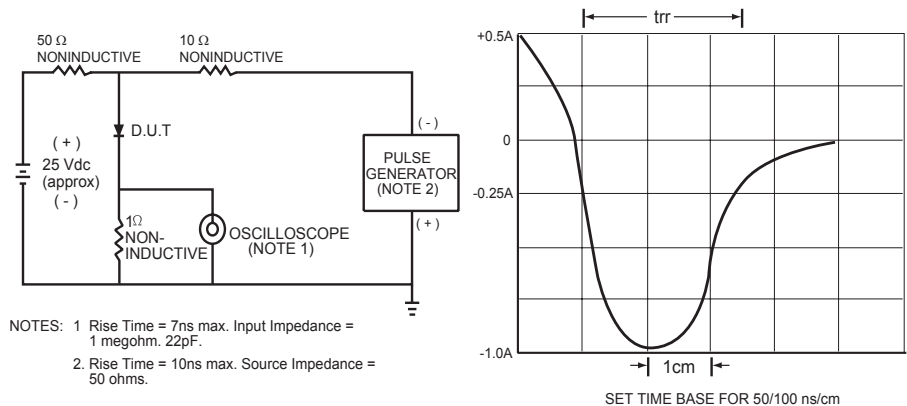


FIG.1 TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

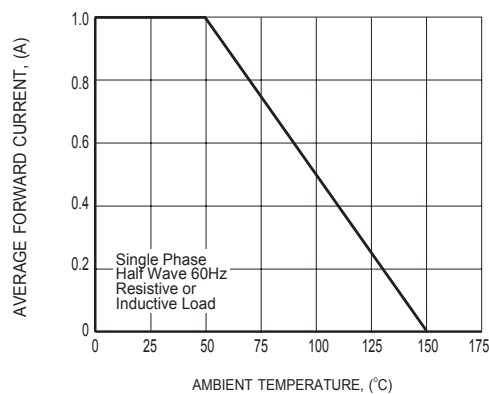


FIG.2 TYPICAL FORWARD CURRENT DERATING CURVE

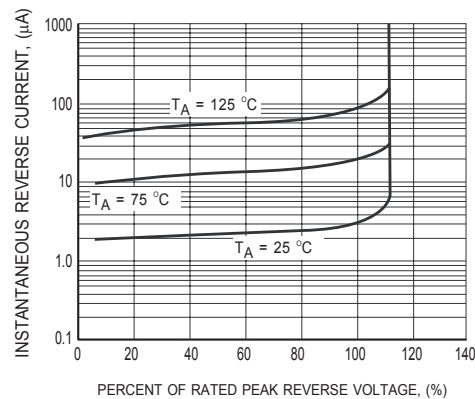


FIG.3 TYPICAL REVERSE CHARACTERISTICS

RATING AND CHARACTERISTICS CURVES (HFM101 THRU HFM108)

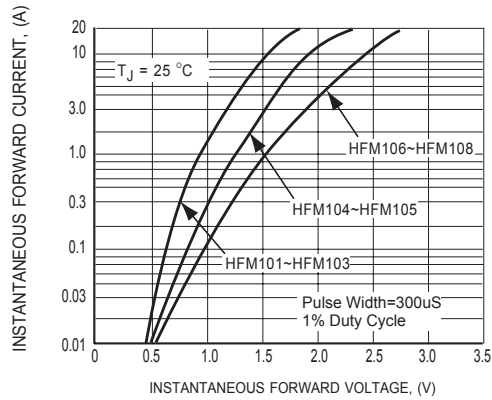


FIG.4 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

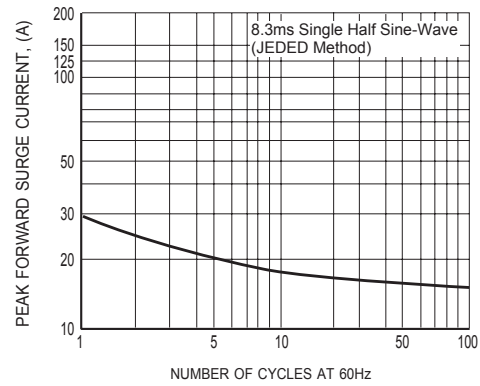


FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

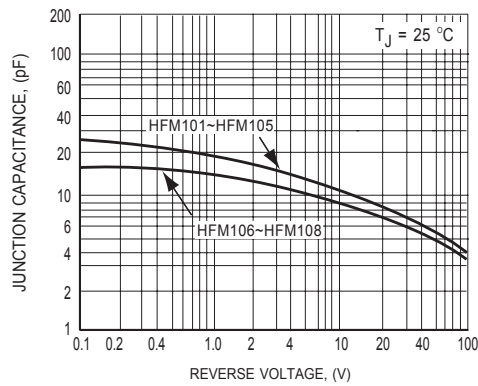
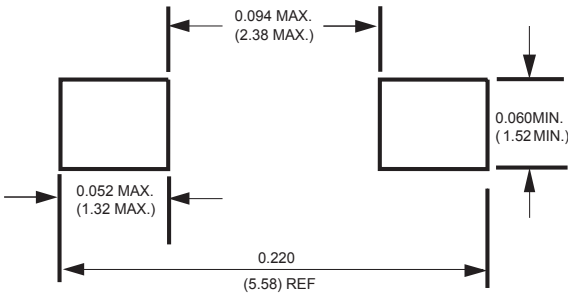


FIG.6 TYPICAL JUNCTION CAPACITANCE

Mounting Pad Layout



Dimensions in inches and (millimeters)

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