

**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

MECHANICAL DATA

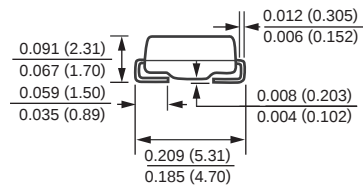
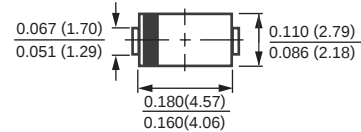
- * Epoxy : Device has UL flammability classification 94V-0
- * Weight : 0.057 gram

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 (At TA = 25°C unless otherwise noted)

RATINGS	SYMBOL	HFM 101ER	HFM 102ER	HFM 103ER	HFM 104ER	HFM 105ER	HFM 106ER	HFM 107ER	HFM 108ER	UNITS
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	200	300	400	600	800	1000	Volts
Maximum RMS Volts	VRMS	35	70	140	210	280	420	560	700	Volts
Maximum DC Blocking Voltage	VDC	50	100	200	300	400	600	800	1000	Volts
Maximum Average Forward Current at TA = 50°C	Io	1.0								Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	IFSM	30								Amps
Typical Junction Capacitance (Note 2)	Cj	15					12			pF
Reverse Energy (Ir=1A)	ER	20								m J
Operating and Storage Temperature Range	TJ, TSTG	-65 to + 150								°C

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

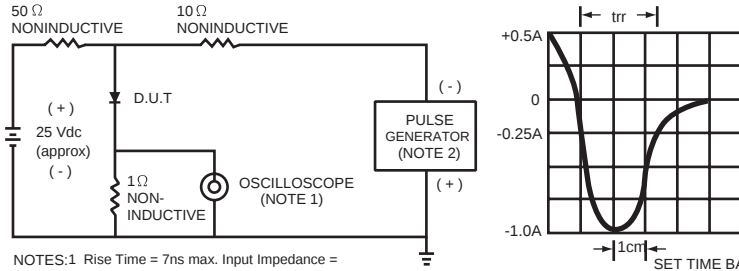
CHARACTERISTICS		SYMBOL	HFM 101ER	HFM 102ER	HFM 103ER	HFM 104ER	HFM 105ER	HFM 106ER	HFM 107ER	HFM 108ER	UNITS
Maximum Forward Voltage at 1.0A DC		V _F	1.0			1.3		1.7			Volts
Maximum Full Load Reverse Current, Full cycle Average T _A =55°C		I _R	50								uAmps
Maximum DC Reverse Current at	@ T _A = 25°C		5.0								uAmps
Rated DC Blocking Voltage			@ T _A = 125°C	100							
Maximum Reverse Recovery Time (Note 1)		trr	50					75			nSec

NOTES : 1. Test Conditions: IF=0.5A, IR=-1.0A, IRR=-0.25A.

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

RATING AND CHARACTERISTIC CURVES (HFM101ER THRU HFM108ER)

FIG. 1 - TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



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

FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

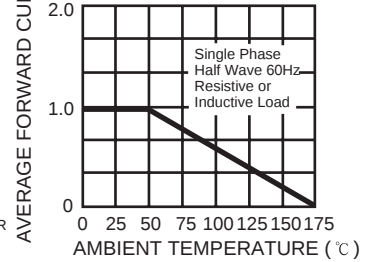


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

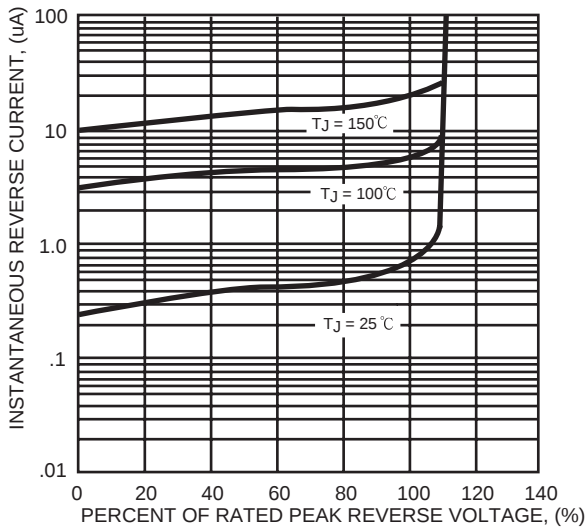


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

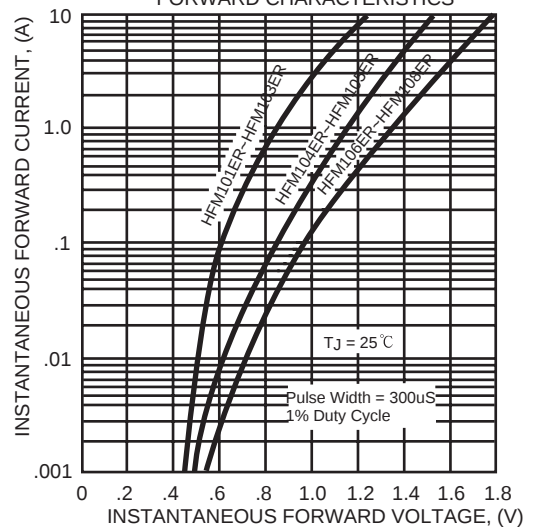


FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

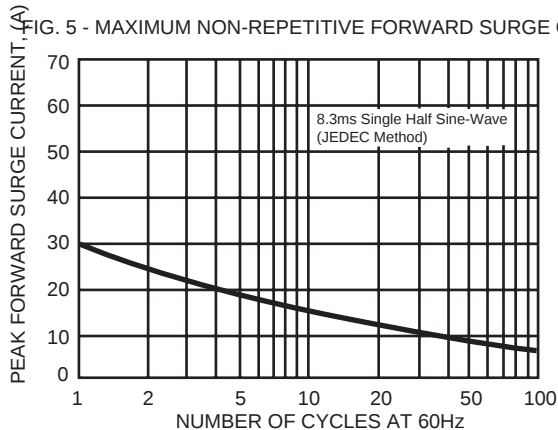
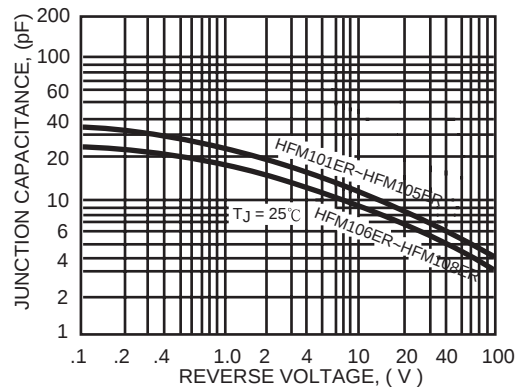
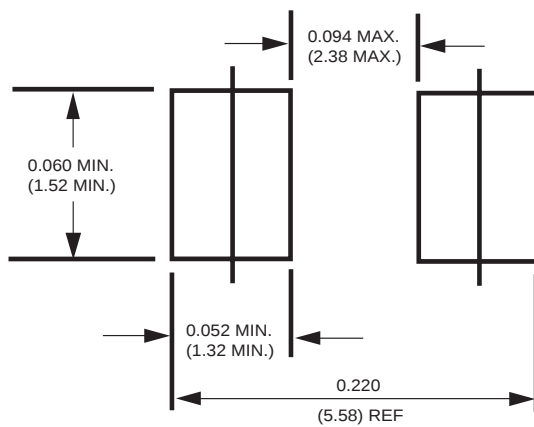


FIG. 6 - TYPICAL JUNCTION CAPACITANCE



Mounting Pad Layout



Dimensions in inches and (millimeters)