

**SURFACE MOUNT GLASS PASSIVATED  
HIGH EFFICIENCY SILICON RECTIFIER**

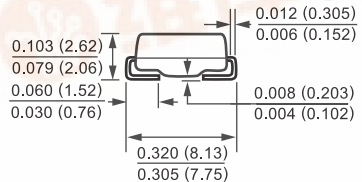
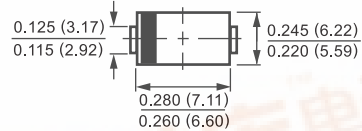
**VOLTAGE RANGE 50 to 1000 Volts CURRENT 3.0 Amperes**

**FEATURES**

- \* Glass passivated device
- \* Ideal for surface mounted applications
- \* Low leakage current
- \* Metallurgically bonded construction
- \* Mounting position: Any
- \* Weight: 0.24 gram



**DO-214AB**



Dimensions in inches and (millimeters)

**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%.

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

RATINGS	SYMBOL	HFM301	HFM302	HFM303	HFM304	HFM305	HFM306	HFM307	HFM308	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	3.0								Amps	
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	IFSM	200					150				Amps
Typical Junction Capacitance (Note 2)	CJ	70					50				pF
Operating and Storage Temperature Range	TJ, TSTG	-65 to + 175								°C	

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

CHARACTERISTICS	SYMBOL	HFM301	HFM302	HFM303	HFM304	HFM305	HFM306	HFM307	HFM308	UNITS	
Maximum Forward Voltage at 3.0A DC	VF	1.0			1.3		1.7			Volts	
Maximum Full Load Reverse Current, Full cycle Average TA=55°C	IR	50									uAmps
Maximum DC Reverse Current at @TA = 25°C		10									uAmps
Rated DC Blocking Voltage @TA = 125°C		150									uAmps
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 ( HFM301 THRU HFM306 )

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

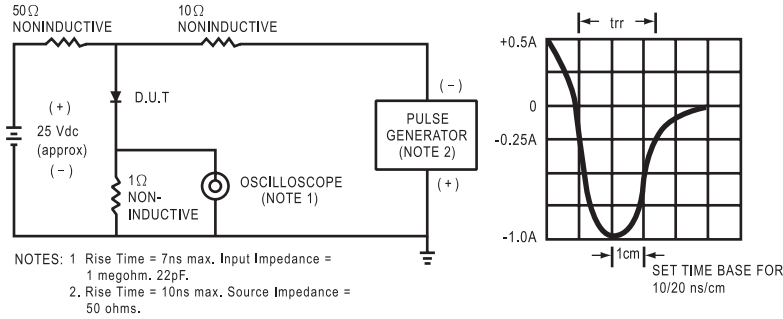


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

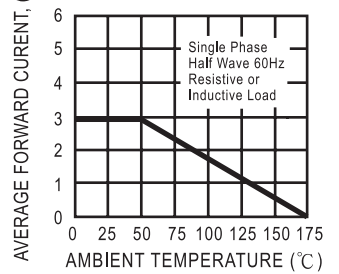


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

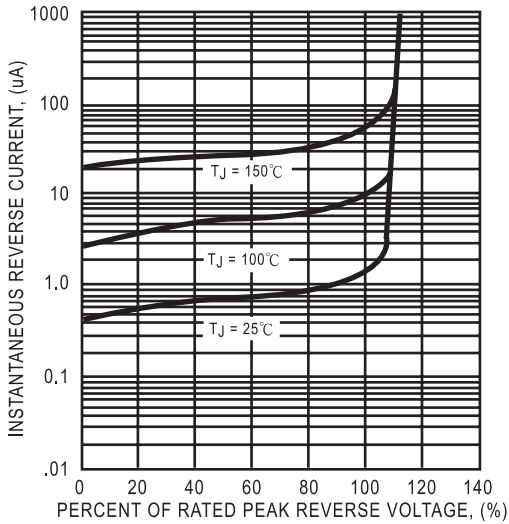


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

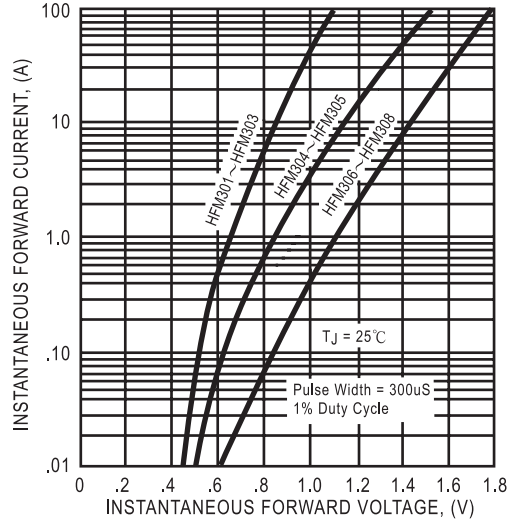


FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

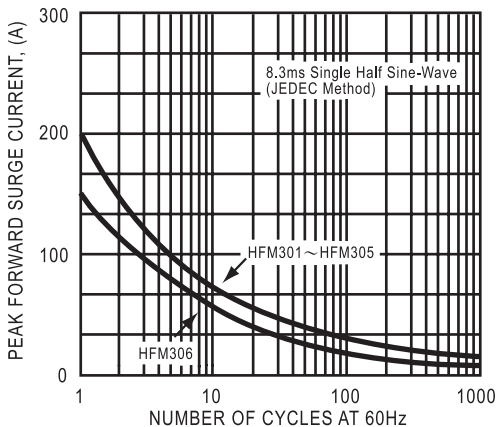


FIG. 6 - TYPICAL JUNCTION CAPACITANCE

