

**SURFACE MOUNT GLASS PASSIVATED  
SUPER FAST SILICON RECTIFIER**

**VOLTAGE RANGE 50 to 600 Volts CURRENT 2.0 Amperes**

**FEATURES**

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

**MECHANICAL DATA**

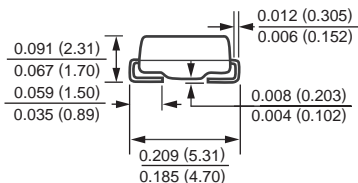
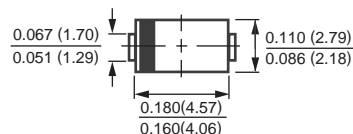
- \* Epoxy : Device has UL flammability classification 94V-0

**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	EFM201A	EFM202A	EFM203A	EFM204A	EFM205A	EFM206A	EFM207A	UNITS	
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	150	200	300	400	600	Volts	
Maximum RMS Volts	V <sub>RMS</sub>	35	70	105	140	210	280	420	Volts	
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	150	200	300	400	600	Volts	
Maximum Average Forward Current at TA = 55°C	I <sub>o</sub>	2.0							Amps	
Peak Forward Surge Current I <sub>FM</sub> (surge): 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	75							Amps	
Typical Junction Capacitance (Note 2)	C <sub>J</sub>	30				20			pF	
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55 to +150								°C

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

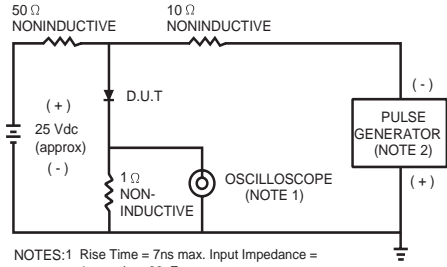
CHARACTERISTICS	SYMBOL	EFM201A	EFM202A	EFM203A	EFM204A	EFM205A	EFM206A	EFM207A	UNITS
Maximum Forward Voltage at 2.0A DC	V <sub>F</sub>	0.95			1.25		1.70		Volts
Maximum DC Reverse Current @ TA = 25°C	I <sub>R</sub>	5.0						uAmps	
at Rated DC Blocking Voltage @ TA = 150°C		50							
Maximum Reverse Recovery Time (Note 1)	t <sub>rr</sub>	35						50	nSec

NOTES : 1. Test Conditions: I<sub>F</sub>=0.5A, I<sub>R</sub>=-1.0A, I<sub>RR</sub>=-0.25A.

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

# RATING AND CHARACTERISTIC CURVES ( EFM201A THRU EFM207A )

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.

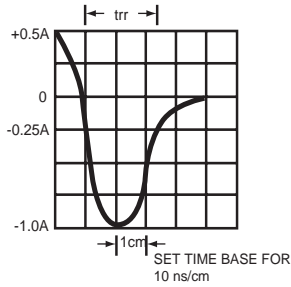


FIG. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

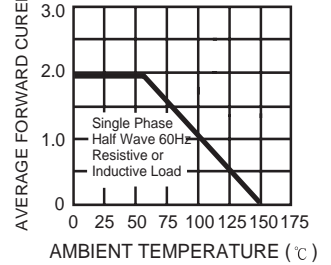


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

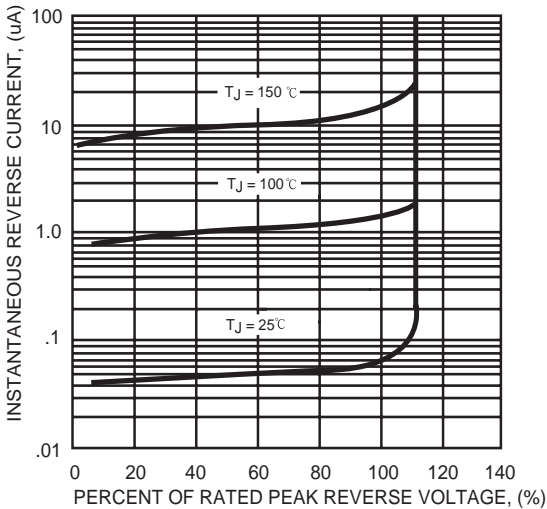


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

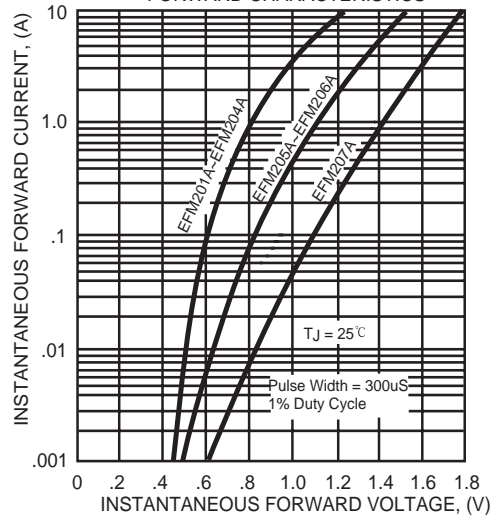


FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

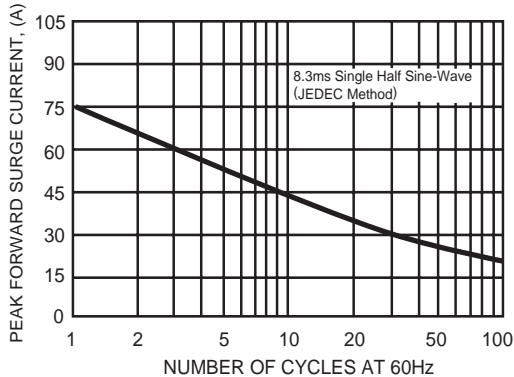
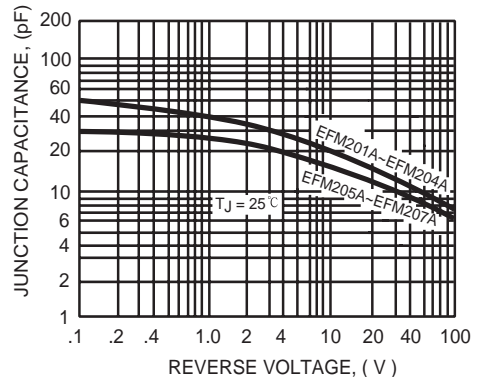
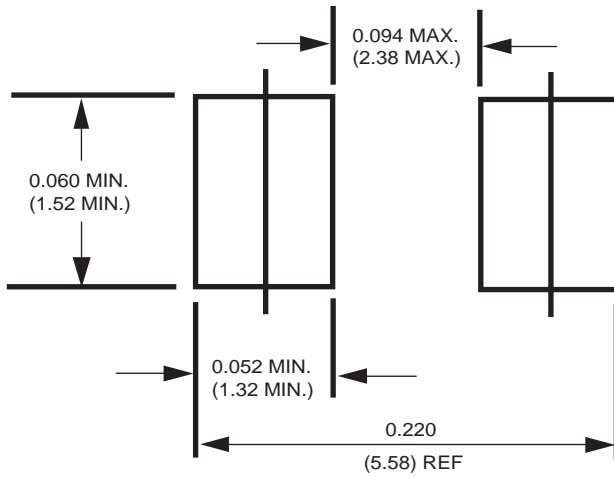


FIG. 6 - TYPICAL JUNCTION CAPACITANCE



## Mounting Pad Layout



Dimensions in inches and (millimeters)