RECTRON
SEMICONDUCTOR
TECHNICAL SPECIFICATION

EFM201A THRU EFM207A

SURFACE MOUNT GLASS PASSIVATED SUPER FAST SILICON RECTIFIER

VOLTAGE RANGE 50 to 600 Volts CURRENT 2.0 Amperes

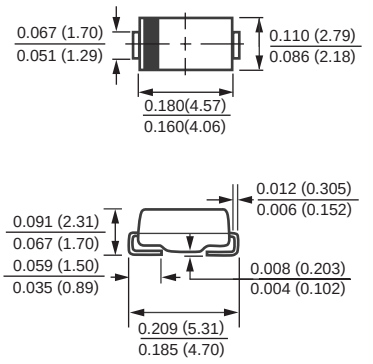
FEATURES

* 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

DO-214AC



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 T_A = 25°C unless otherwise noted)

RATINGS	SYMBOL	EFM201A	EFM202A	EFM203A	EFM204A	EFM205A	EFM206A	EFM207A	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	150	200	300	400	600	Volts
Maximum RMS Volts	V_{RMS}	35	70	105	140	210	280	420	Volts
Maximum DC Blocking Voltage	V_{DC}	50	100	150	200	300	400	600	Volts
Maximum Average Forward Current at T_A = 55°C	I_O	2.0							Amps
Peak Forward Surge Current I_{FM} (surge): 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	75							Amps
Typical Junction Capacitance (Note 2)	C_J	30				20			pF
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to + 150							°C

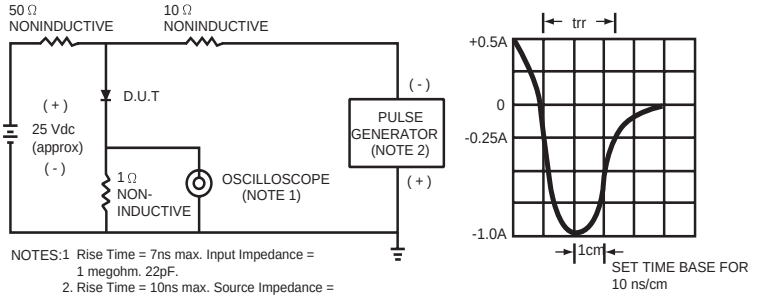
ELECTRICAL CHARACTERISTICS (At T_A = 25°C unless otherwise noted)

CHARACTERISTICS		SYMBOL	EFM201A	EFM202A	EFM203A	EFM204A	EFM205A	EFM206A	EFM207A	UNITS
Maximum Forward Voltage at 2.0A DC		V_F	0.95				1.25		1.70	Volts
Maximum DC Reverse Current	@T_A = 25°C	I_R	5.0							uAmps
at Rated DC Blocking Voltage	@T_A =150°C		50							
Maximum Reverse Recovery Time (Note 1)		trr	35						50	nSec

NOTES : 1. Test Conditions: I_F=0.5A, I_R=-1.0A, I_{RR}=-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

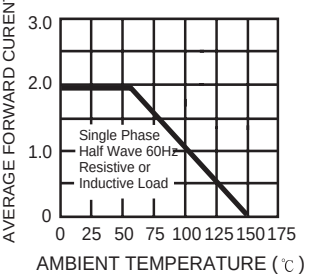


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

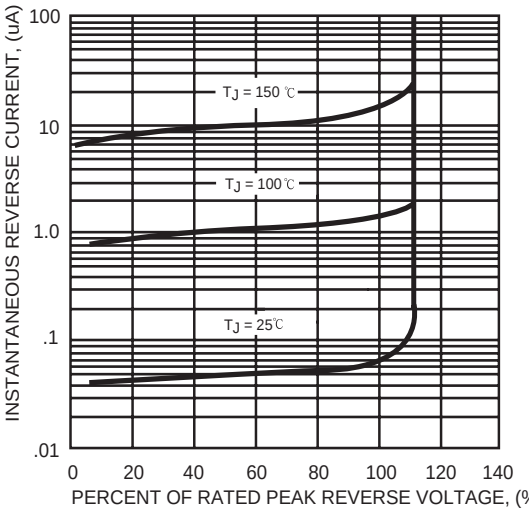


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

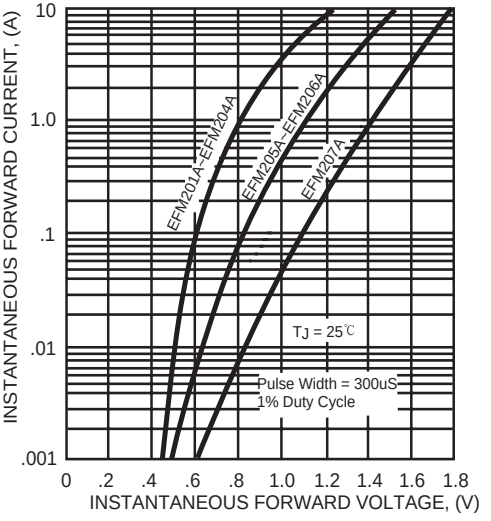


FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

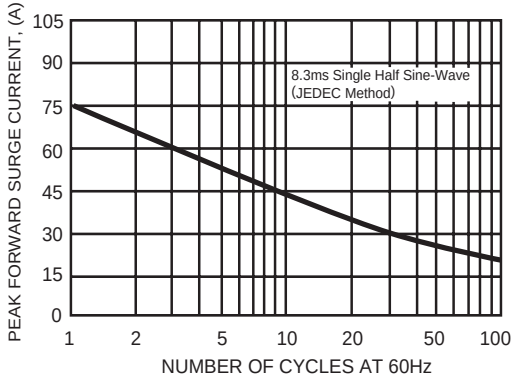
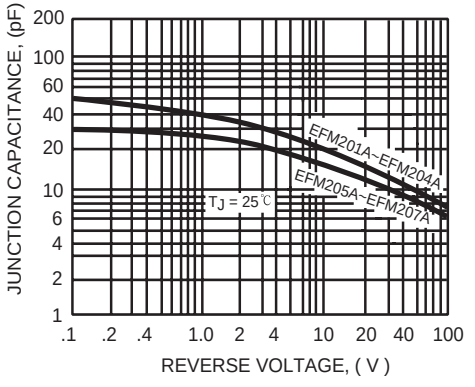
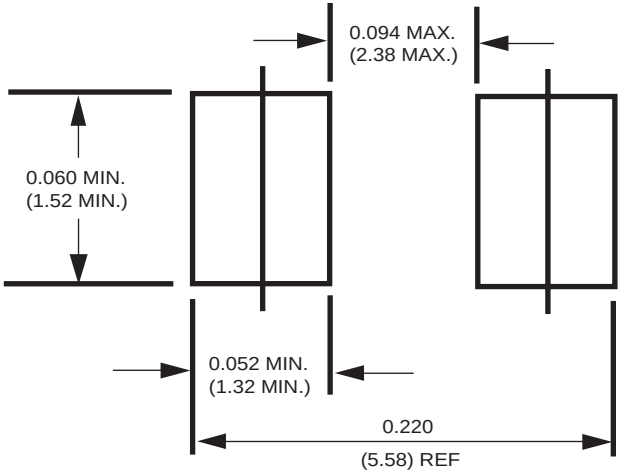


FIG. 6 - TYPICAL JUNCTION CAPACITANCE



Mounting Pad Layout



Dimensions in inches and (millimeters)