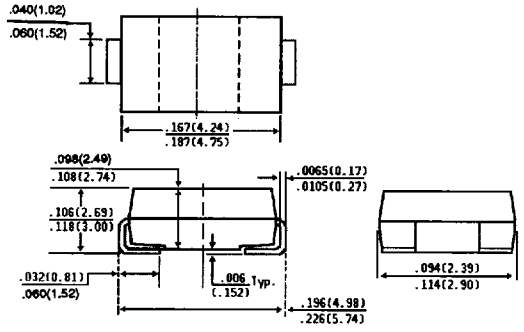
EGF1A THRU EGF1D

ULTRA FAST SURFACE MOUNT RECTIFIER

***VOLTAGE** - 50 to 200 Volts **CURRENT** - 1.0 Ampere*

FEATURES

DO-214BA



Dimensions in inches and (millimeters)

PATENTED*

Glass-Plastic encapsulation technique is covered by Patent No. 3,996,602 of 1976; brazed-lead assembly to Patent No. 3,930,306 of 1976.

- Plastic package has Underwriters Laboratory Flammability Classification 94 V-O
- Ideal for surface mounted automotive applications
- High temperature metallurgically bonded constructed rectifiers
- Superfast recovery times for high efficiency
- Glass passivated junction
- Built-in strain relief
- Easy pick and place
- High temperature soldering guaranteed: 450°C/5 seconds at terminals. Complete device submersible temperature of 265°C for 10 seconds in solder bath

MECHANICAL DATA

Case: JEDEC DO-214BA molded plastic over glass passivated junction
Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
Polarity: Color band denotes cathode
Standard Packaging: 12mm tape *(EIA STD RS-481)*
Weight: 0.0048 ounces, 0.120 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Resistive or inductive load.

	SYMBOLS	EGF1A	EGF1B	EGF1C	EGF1D	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	150	200	Volts
Maximum RMS Voltage	V_{RMS}	35	70	105	140	Volts
Maximum DC Blocking Voltage	V_{DC}	50	100	150	200	Volts
Maximum Average Forward Rectified Current at T_L=125°C	$I_{(AV)}$	1.0				Amps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30.0				Amps
Maximum Instantaneous Forward Voltage at 1.0A	V_F	1.00				Volts
Maximum DC Reverse Current T_A=25°C at Rated DC Blocking Voltage T_A=125°C	I_R	5.0 50.0				µA
Maximum Reverse Recovery Time (NOTE 1)	T_{rr}	50.0				ns
Typical Junction Capacitance (NOTE 2)	C_J	15.0				pF
Maximum Thermal Resistance (NOTE 3)	$R\theta JL$	30.0				°C/W
Operating Junction and Storage Temperature Range	T_J,T_{STG}	-65 to +175				°C

NOTES:
1. Reverse Recovery Test Conditions: I_F=0.5A, I_R=1.0A, Irr=0.25A.
2. Measured at 1.0 MHz and applied Vr=4.0 volts.
3. P.C. board mounted on 5.0mm² (.013mm thick) copper land areas.

FIG. 1 - FORWARD CURRENT DERATING CURVE

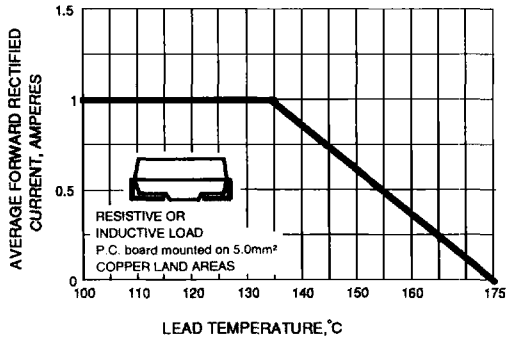


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

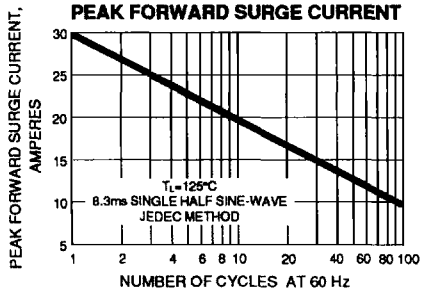


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

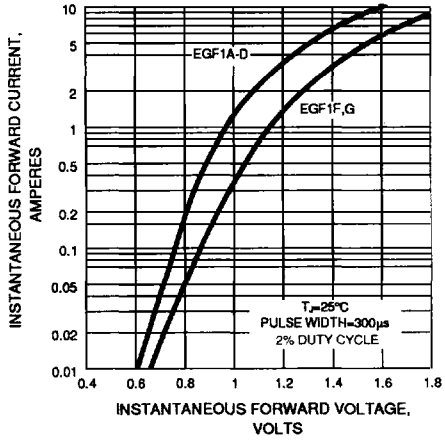


FIG. 4 - TYPICAL JUNCTION CAPACITANCE

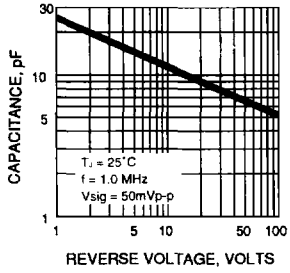


FIG. 5 - TYPICAL REVERSE CHARACTERISTICS

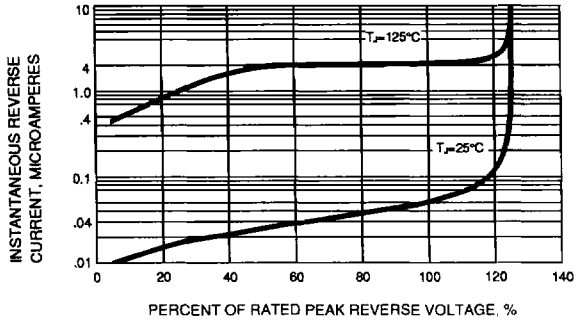


FIG. 6 - SURFACE MOUNT SUPERECTIFIER PACKAGE