



EGF1A THRU EGF1M

1.0 AMP. Surface Mount Glass Passivated Junction High Efficient Rectifiers



Voltage Range
50 to 1000 Volts
Current
1.0 Ampere

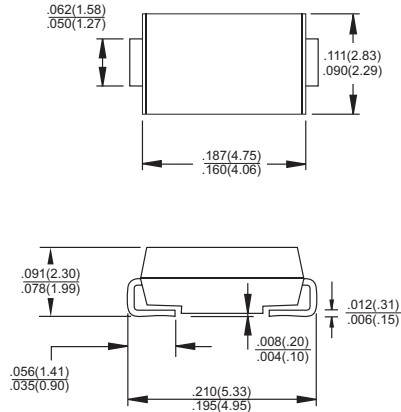
Features

- ✧ Ideal for surface mount automotive applications
- ✧ Glass passivated cavity-free junction
- ✧ Easy pick and place
- ✧ Capable of meeting enviromental standard of MIL-S-19500
- ✧ Plastic material used carries Underwriters Laboratory Classification 94V-O
- ✧ Complete device submersible temperature of 265°C for 10 sec in solder bath.

Mechanical Data

- ✧ Case: Molded plastic
- ✧ Terminals: Solder plated
- ✧ Polarity: Indicated by cathode band
- ✧ Packaging: 12mm tape per EIA STD RS-481
- ✧ Weight: 0.120 gram

SMA/DO-214AC



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Rating 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%

Type Number	Symbol	EGF 1A	EGF 1B	EGF 1C	EGF 1D	EGF 1G	EGF 1J	EGF 1K	EGF 1M	Units
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	100	150	200	400	600	800	1000	V
Maximum RMS Voltage	V _{RMS}	35	70	105	140	280	420	560	700	V
Maximum DC Blocking Voltage	V _{DC}	50	100	150	200	400	600	800	1000	V
Maximum Average Forward Rectified Current @T _L =125°C	I _(AV)	1.0								A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I _{FSM}	30								A
Maximum Instantaneous Forward Voltage @ 1.0A	V _F	1.0				1.3	1.7			V
Maximum DC Reverse Current @T _A =25°C at Rated DC Blocking Voltage @ T _A =125°C	I _R	5 100								μA μA
Maximum Reverse Recovery Time (Note 1)	T _{rr}	50					75			nS
Typical Junction Capacitance (Note 2)	C _j	15								pF
Typical Thermal Resistance (Note 3)	Rθ _{JA} Rθ _{JL}	85.0 30.0								°C/W
Operating Temperature Range	T _J	-65 to +175								°C
Storage Temperature Range	T _{STG}	-65 to +175								°C

Notes: 1. Reverse Recovery Test Conditions: $I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $I_{RR} = 0.25\text{A}$

2. Measured at 1 MHz and Applied $V_R = 4.0$ Volts

3. Thermal Resistance from Junction to Ambient and from Junction to Lead P.C.B. Mounted on 0.2 x 0.2" (5.0 x 5.0mm) Copper Pad Areas.

RATINGS AND CHARACTERISTIC CURVES (EGF1A THRU EGF1M)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

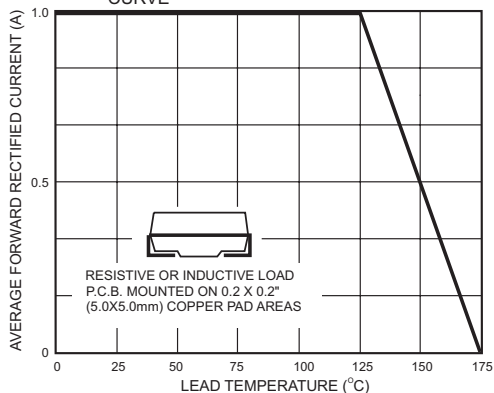


FIG.2- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

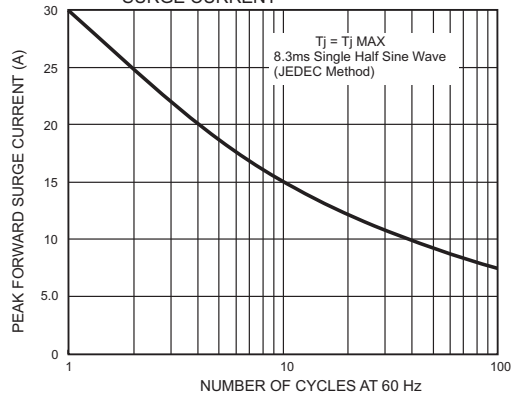


FIG.3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

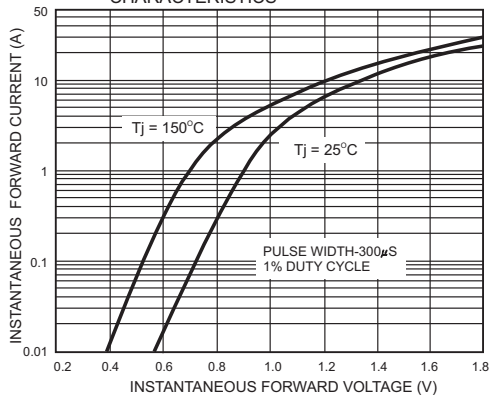


FIG.4- TYPICAL REVERSE LEAKAGE CHARACTERISTICS

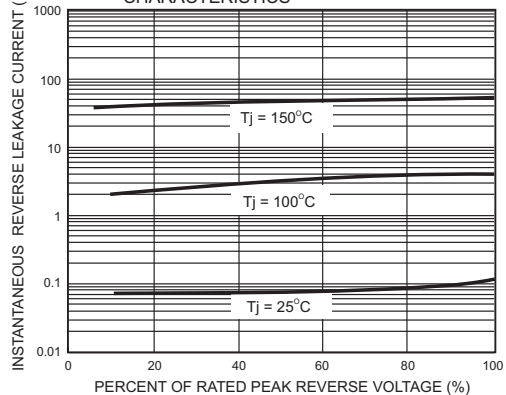


FIG.5- TYPICAL JUNCTION CAPACITANCE

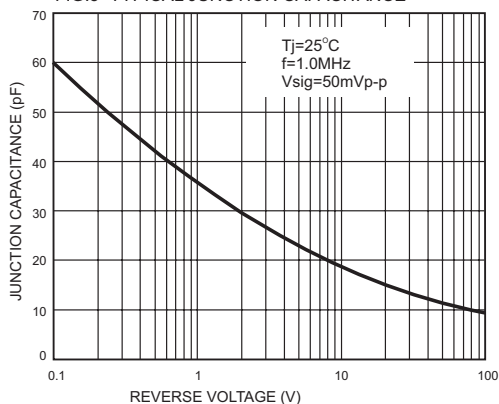


FIG.6- TYPICAL TRANSIENT THERMAL IMPEDANCE

