



# EGF10A THRU EGF10M

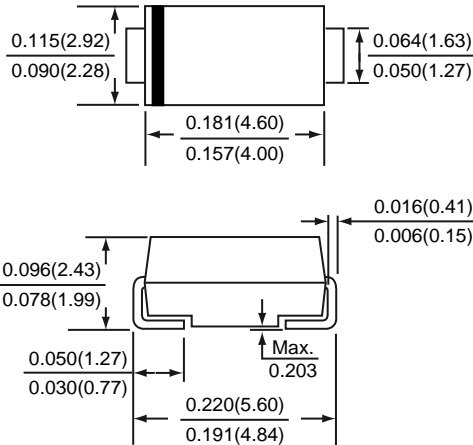
## SURFACE MOUNT GLASS PASSIVATED JUNCTION HIGH EFFICIENT RECTIFIER

Reverse Voltage - 50 to 1000 Volts

Forward Current - 1.0 Ampere

**PATENTED**

SMA/DO-214AC



\*Dimensions in inches and (millimeters)

**SUPEREX II**™

### FEATURES

- \* GPRC (Glass Passivated Rectifier Chip) inside
- \* Glass passivated cavity-free junction
- \* Ideal for surface mount automotive applications
- \* Superfast recovery time for high efficiency
- \* Built-in strain relief
- \* Easy pick and place
- \* High temperature soldering guaranteed: 260°C/10 seconds, at terminals
- \* Plastic package has Underwriters Laboratory Flammability Classification 94V-0

### MECHANICAL DATA

**Case :** JEDEC DO-214AC molded plastic over passivated chip

**Terminals :** Tin plated, solderable per MIL-STD-750, Method 2026

**Polarity :** Color band denotes cathode end

**Weight :** 0.002 ounces , 0.064 gram

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.	SYMBOLS	EGF10							UNITS	
		A	B	D	G	J	K	M		
Maximum repetitive peak reverse voltage	VRRM	50	100	200	400	600	800	1000	Volts	
Maximum RMS voltage	VRMS	35	70	140	280	420	560	700	Volts	
Maximum DC blocking voltage	VDC	50	100	200	400	600	800	1000	Volts	
Maximum average forward rectified current at T <sub>L</sub> =75°C	I (AV)	1.0							Amps	
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	30							Amps	
Maximum instantaneous forward voltage at 1.0 A	VF	1.0		1.25		1.7			Volts	
Maximum DC reverse current at rated DC blocking voltage	IR	5		30		50			uA	
		5		50		-				
Maximum reverse recovery time (NOTE 1)	trr	50				75				nS
Typical junction capacitance (NOTE 2)	CJ	15							pF	
Typical thermal resistance (NOTE 3)	R θJA R θJL	67				26				°C / W
Operating junction and storage temperature range	TJ,TSTG	-65 to +175							°C	

NOTES : (1) Reverse recovery test condition : IF 0.5A, IR=1.0A, Irr=0.25A

(2) Measured at 1.0 MHz and applied reverse voltage of 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 EGF10A THRU EGF10M

FIG.1 - FORWARD CURRENT DERATING CURVE

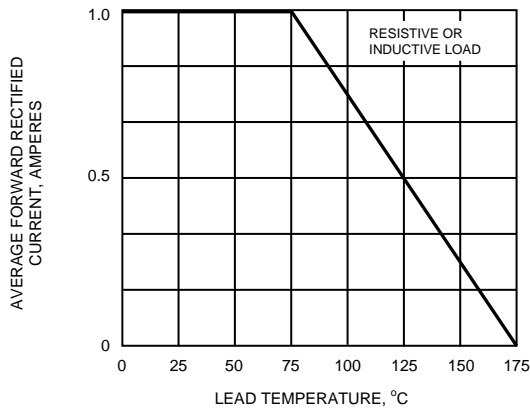


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

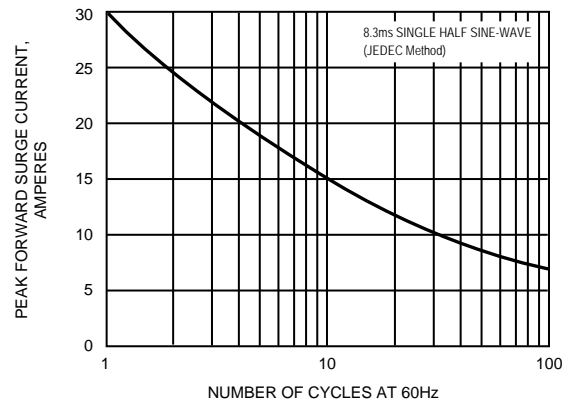


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

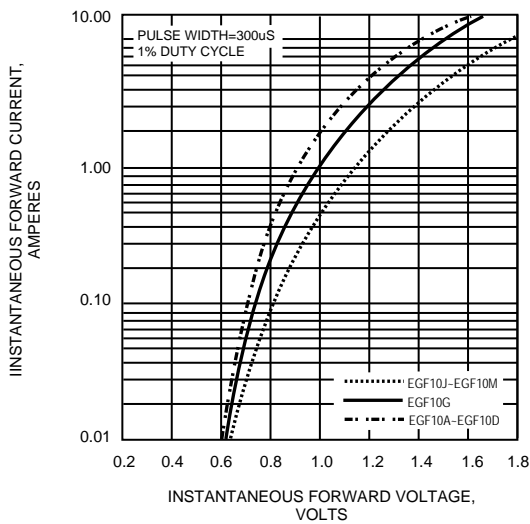


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

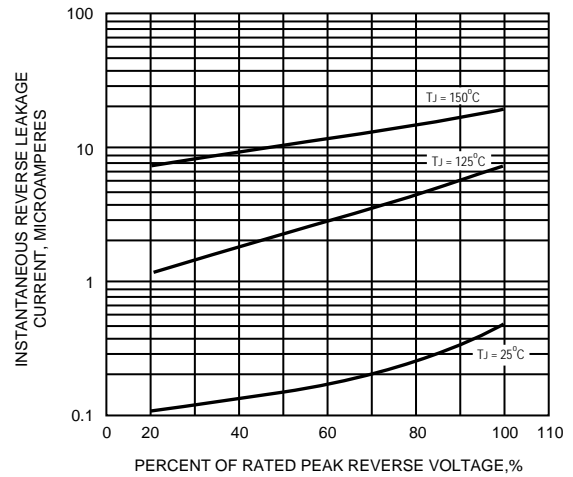


FIG.5 - TYPICAL JUNCTION CAPACITANCE

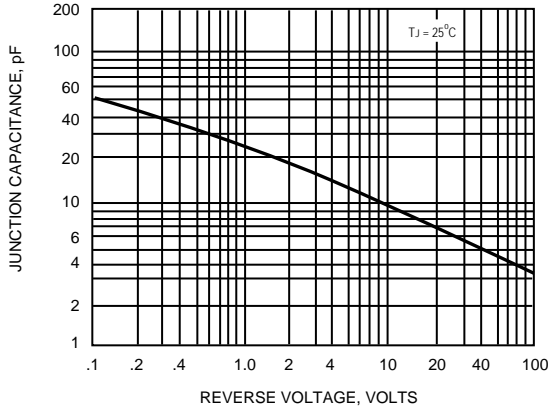


FIG.6 - TYPICAL TRANSIENT THERMAL IMPEDANCE

