



# EGF30AH THRU EGF30MH

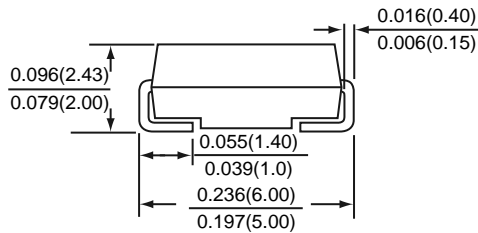
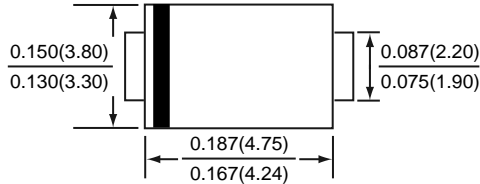
**SURFACE MOUNT GLASS PASSIVATED JUNCTION HIGH EFFICIENT RECTIFIER**

Reverse Voltage - 50 to 1000 Volts

Forward Current - 3.0 Amperes

**PATENTED**

SMB/DO-214AA



\*Dimensions in inches and (millimeters)

**SUPEREX II**™

## FEATURES

- \* Halogen-free type
- \* 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-214AA molded plastic over passivated chip

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

**Polarity :** Color band denotes cathode end

**Weight :** 0.004 ounces , 0.12 gram

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.	SYMBOLS	EGF30							UNITS
		AH	BH	DH	GH	JH	KH	MH	
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 (SEE FIG.1)	I (AV)	3.0							Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	115				105			Amps
Maximum instantaneous forward voltage at 3.0 A	VF	1.0		1.25		1.7		Volts	
Maximum DC reverse current TA=25°C at rated DC blocking voltage TA=125°C TA=150°C	IR	5 50 120				5 120 -		uA	
Maximum reverse recovery time (NOTE 1)	trr	50				75			nS
Typical junction capacitance (NOTE 2)	CJ	75							pF
Typical thermal resistance (NOTE 3)	RθJA RθJL	47 12							°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 EGF30AH THRU EGF30MH

FIG. 1 - FORWARD CURRENT DERATING CURVE

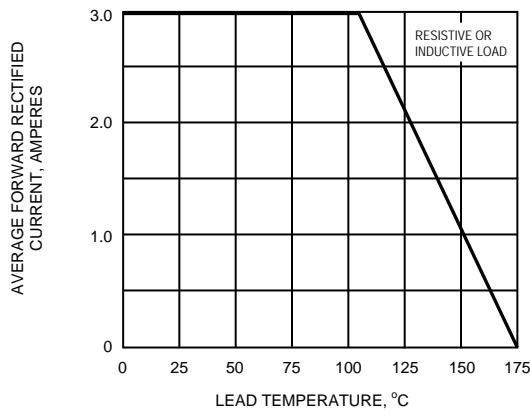


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

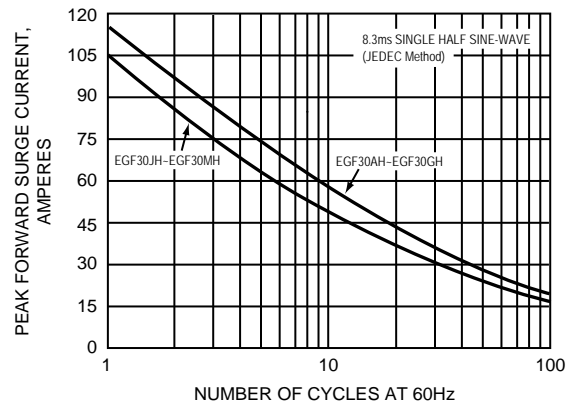


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

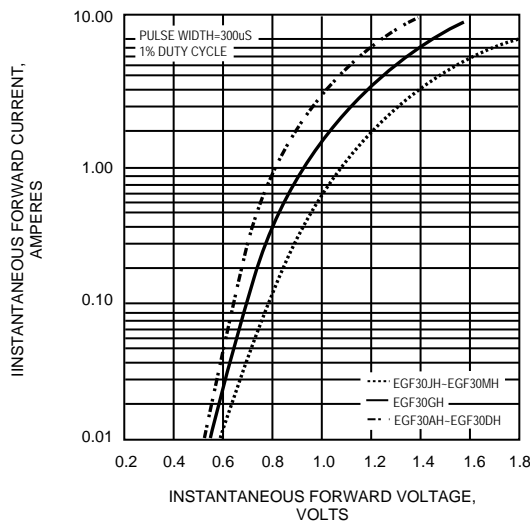


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

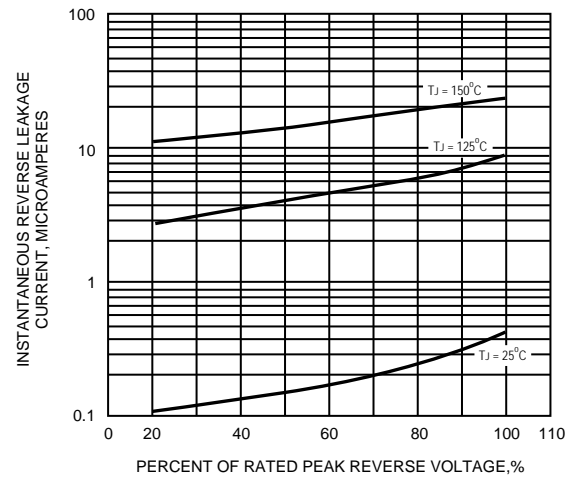


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

