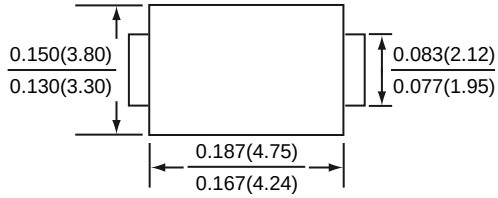
EGF30A THRU EGF30M

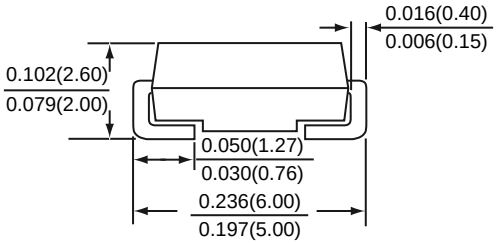
SURFACE MOUNT GLASS PASSIVATED JUNCTION HIGH EFFICIENT RECTIFIER

Reverse Voltage - 50 to 1000 Volts *Forward Current - 3.0 Amperes*

PATENTED

DO-214AA





*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-214AA molded plastic over passivated chip
Terminals : Solder plated , solderable per MIL-STD-750, Method 2026
Polarity : Color band denotes cathode end
Mounting Position : Any
Weight : 0.004 ounes , 0.12 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.	*SYMBOLS*	*EGF30*								*UNITS*
		A	***B***	***D***	***F***	***G***	***J***	***K***	***M***	
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	300	400	600	800	1000	Volts
Maximum RMS voltage	V_{RMS}	35	70	140	210	280	420	560	700	Volts
Maximum DC blocking voltage	V_{DC}	50	100	200	300	400	600	800	1000	Volts
Maximum average forward rectified current T_A=75°C	I (AV)	3.0								Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	115					105			Amps
Maximum instantaneous forward voltage at 3.0 A	V_F	1.0				1.25	1.7			Volts
Maximum DC reverse current at rated DC blocking voltage T_A=25°C T_A=125°C T_A=150°C	I_R	5 50 120					5 120 -			uA
Maximum reverse recovery time (NOTE 1)	trr	50					75			nS
Typical junction capacitance (NOTE 2)	C_J	75								pF
Typical thermal resistance (NOTE 3)	$R_{\theta JA}$ $R_{\theta JL}$	47 12								°C / W
Operating junction and storage temperature range	T_J,T_{STG}	-65 to +175					-55 to +150			°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 EGF30A THRU EGF30M

FIG.1 - FORWARD CURRENT DERATING CURVE

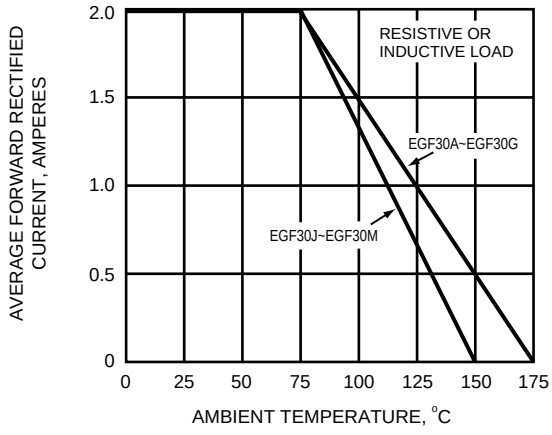


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

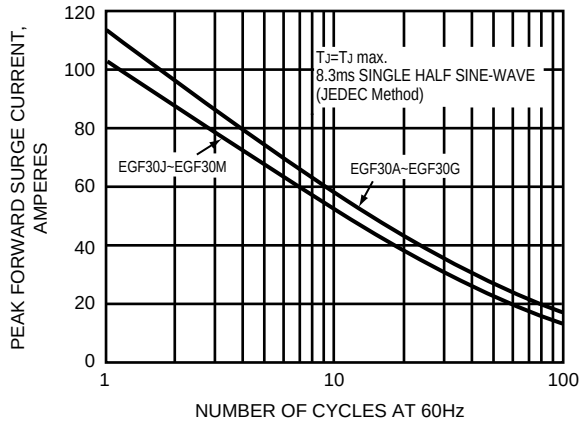


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

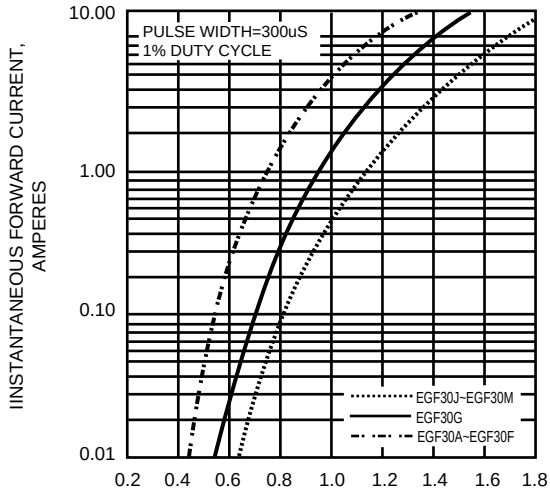


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

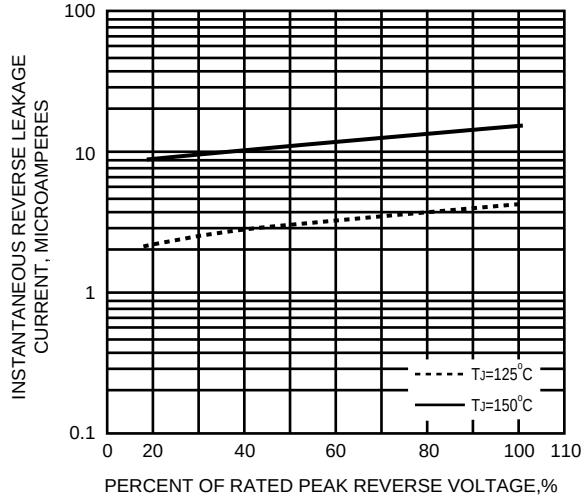


FIG.5 - TYPICAL JUNCTION CAPACITANCE

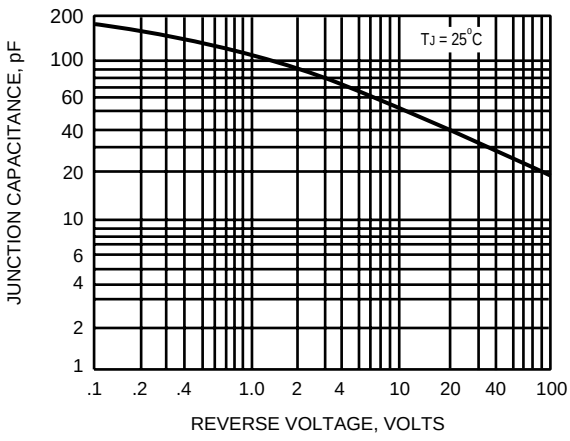


FIG.6 - TYPICAL TRANSIENT THERMAL IMPEDANCE

