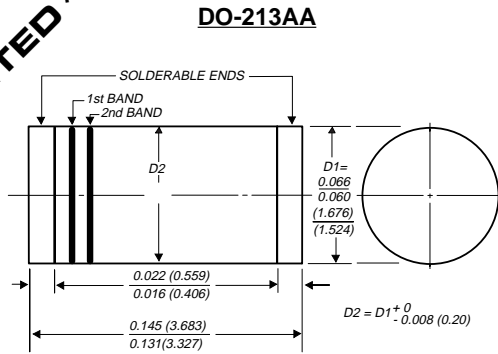


# BYM07-50 THRU BYM07-400 EGL34A THRU EGL34G

**SURFACE MOUNT GLASS PASSIVATED JUNCTION FAST EFFICIENT RECTIFIER**  
*Reverse Voltage - 50 to 400 Volts      Forward Current - 0.5 Ampere*

**PATENTED\***



1st band denotes type and polarity  
 2nd band denotes voltage type

Dimensions in inches and (millimeters)

\* Glass-plastic encapsulation is covered by

Patent No. 3,996,602 and brazed-lead assembly to Patent No. 3,930,306



## FEATURES

- ◆ Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- ◆ Capable of meeting environmental standards of MIL-S-19500
- ◆ For surface mount applications
- ◆ High temperature metallurgically bonded construction
- ◆ Glass passivated cavity-free junction
- ◆ Fast switching for high efficiency
- ◆ High temperature soldering guaranteed:  
 450°C/5 seconds at terminals. Complete device submersible temperature of 260°C for 10 seconds in solder bath



## MECHANICAL DATA

**Case:** JEDEC DO-213AA molded plastic over glass body

**Terminals:** Plated terminals, solderable per MIL-STD-750, Method 2026

**Polarity:** Two bands indicate cathode end -1st band denotes device type and 2nd band denotes repetitive peak reverse voltage rating

**Mounting Position:** Any

**Weight:** 0.0014 ounce, 0.036 gram

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOLS	BYM07 -50	BYM07 -100	BYM07 -150	BYM07 -200	BYM07 -300	BYM07 -400	UNITS
Fast efficient device: 1st band is Green		EGL34A	EGL34B	EGL34C	EGL34D	EGL34F	EGL34G	
Polarity color bands (2nd Band)		GRAY	RED	PINK	ORANGE	BROWN	YELLOW	
Maximum repetitive peak reverse voltage	$V_{RRM}$	50	100	150	200	300	400	Volts
Maximum RMS voltage	$V_{RMS}$	35	70	105	140	210	280	Volts
Maximum DC blocking voltage	$V_{DC}$	50	100	150	200	300	400	Volts
Maximum average forward rectified current at $T_T=75^\circ\text{C}$	$I_{(AV)}$	0.5						Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	10.0						Amps
Maximum instantaneous forward voltage at 0.5A	$V_F$	1.25				1.35		Volts
Maximum DC reverse current at rated DC blocking voltage	$I_R$	$T_A=25^\circ\text{C}$ 5.0				$T_A=125^\circ\text{C}$ 50.0		$\mu\text{A}$
Maximum full load reverse current, full cycle average at $T_A=55^\circ\text{C}$	$I_{R(AV)}$	50.0						$\mu\text{A}$
Maximum reverse recovery time (NOTE 1)	$t_{rr}$	50.0						ns
Typical junction capacitance (NOTE 2)	$C_J$	7.0						pF
Maximum thermal resistance (NOTE 3) (NOTE 4)	$R_{\theta JA}$ $R_{\theta JT}$	150.0				70.0		$^\circ\text{C/W}$
Operating junction and storage temperature range	$T_J, T_{STG}$	-65 to +175						$^\circ\text{C}$

### NOTES:

(1) Reverse recovery test conditions:  $I_F=0.5\text{A}$ ,  $I_R=1.0\text{A}$ ,  $I_{rr}=0.25\text{A}$

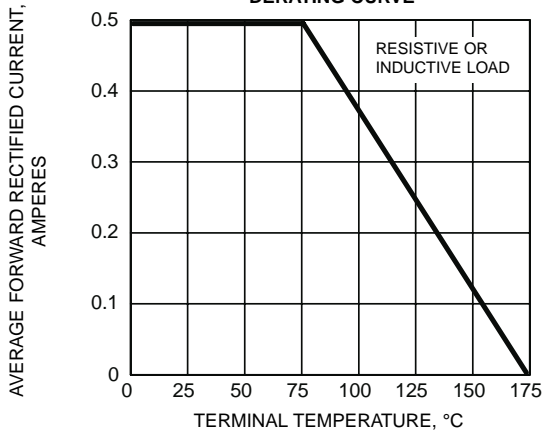
(2) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts

(3) Thermal resistance from junction to ambient, 0.24 x 0.24" (6.0 x 6.0mm) copper pads to each terminal

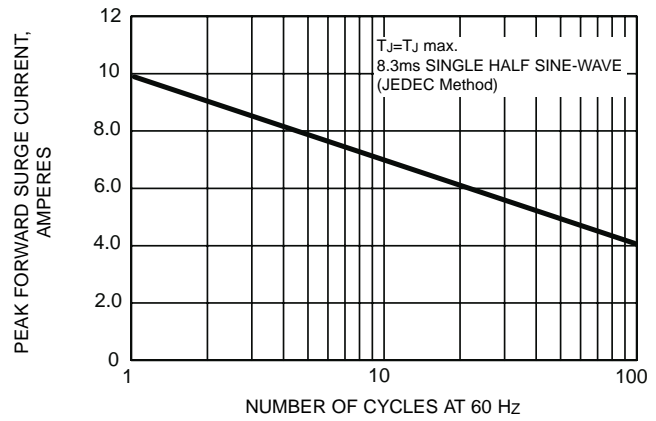
(4) Thermal resistance from junction to terminal, 0.24 x 0.24" (6.0 x 6.0mm) copper pads to each terminal

# RATINGS AND CHARACTERISTIC CURVES BYM07-50 THRU BYM07-400 / EGL34A THRU EGL34G

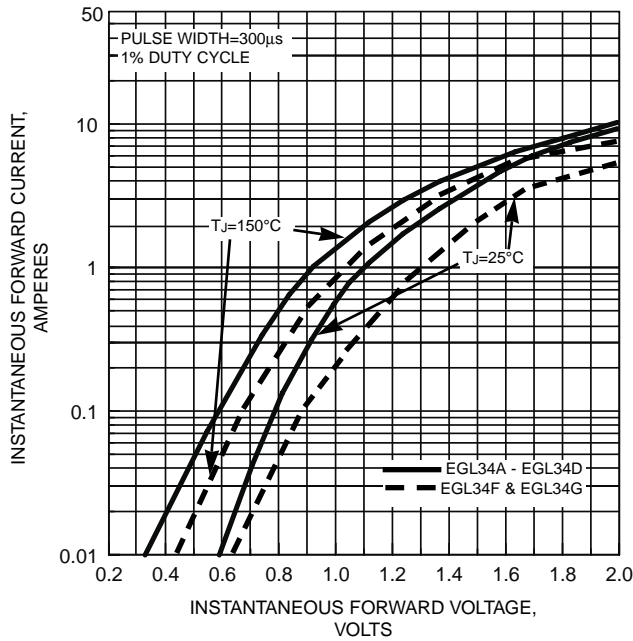
**FIG. 1 - FORWARD CURRENT DERATING CURVE**



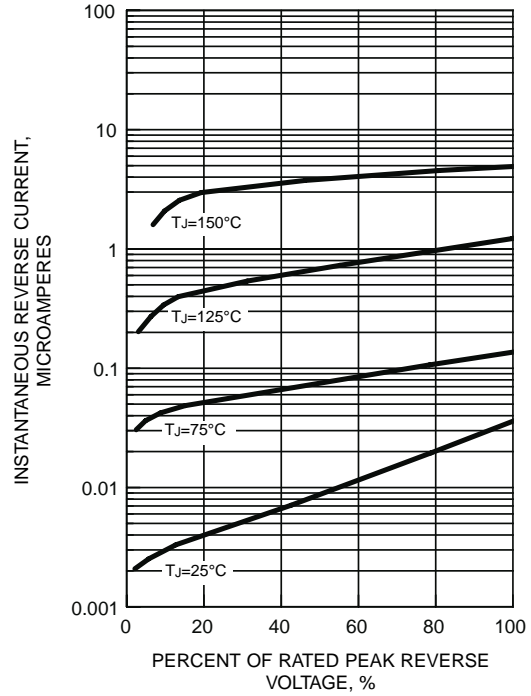
**FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



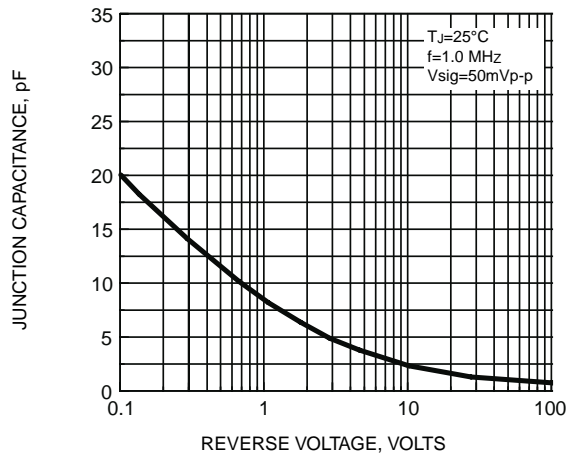
**FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



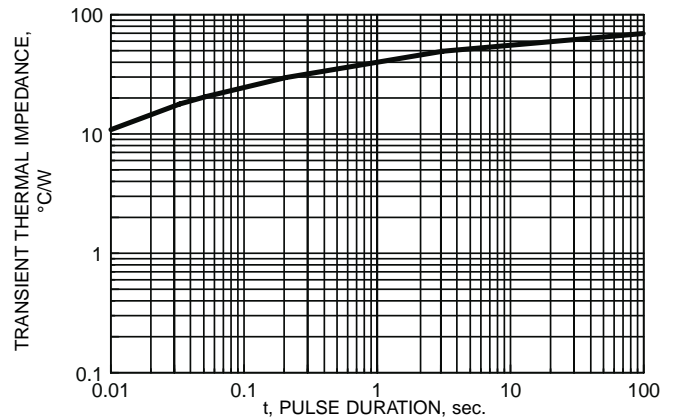
**FIG. 4 - TYPICAL REVERSE CHARACTERISTICS**



**FIG. 5 - TYPICAL JUNCTION CAPACITANCE**



**FIG. 6 - TYPICAL TRANSIENT THERMAL IMPEDANCE**





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