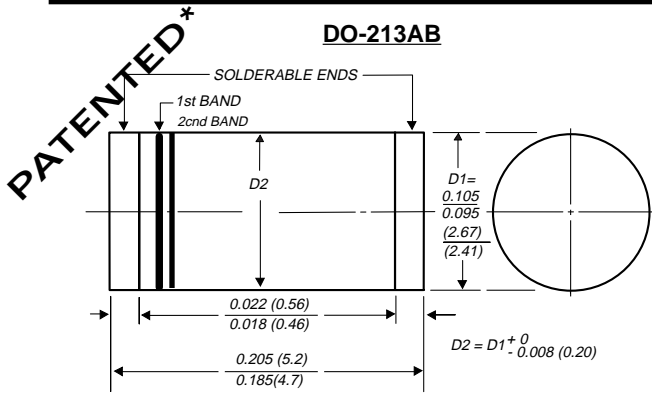


# BYM12-50 THRU BYM12-400 EGL41A THRU EGL41G

**SURFACE MOUNT GLASS PASSIVATED JUNCTION FAST EFFICIENT RECTIFIER**  
*Reverse Voltage - 50 to 400 Volts      Forward Current - 1.0 Ampere*



1st band denotes type and positive end (cathode)

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-213AB 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:** 0.116 ounce, 0.0046 gram

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOLS	BYM12 -50	BYM12 -100	BYM12 -150	BYM12 -200	BYM12 -300	BYM12 -400	UNITS
Fast efficient device: 1st band is green		EGL41A	EGL41B	EGL41C	EGL41D	EGL41F	EGL41G	
Polarity color bands (2cnd 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 $T_T=75^\circ\text{C}$	$I_{(AV)}$	1.0						Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	30.0						Amps
Maximum instantaneous forward voltage at 1.0A	$V_F$	1.0				1.25		Volts
Maximum DC reverse current at rated DC blocking voltage	$I_R$	5.0				50.0		$\mu\text{A}$
Maximum reverse recovery time (NOTE 1)	$t_{rr}$	50.0						ns
Typical junction capacitance (NOTE 2)	$C_J$	20.0				14.0		pF
Maximum thermal resistance (NOTE 3)	$R_{\theta JA}$	60.0						$^\circ\text{C/W}$
(NOTE 4)	$R_{\theta JT}$	30.0						
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 BYM12-50 THRU BYM12-400, EGL41A THRU EGL41G

