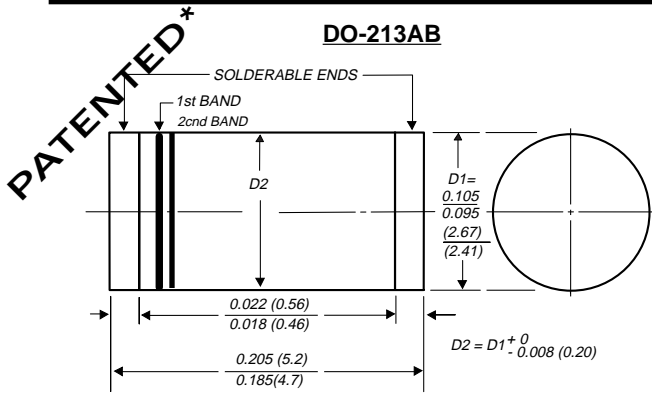


BYM12-50 THRU BYM12-400 EGL41A THRU EGL41G

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			μA
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

FIG. 1 - MAXIMUM FORWARD CURRENT DERATING CURVE

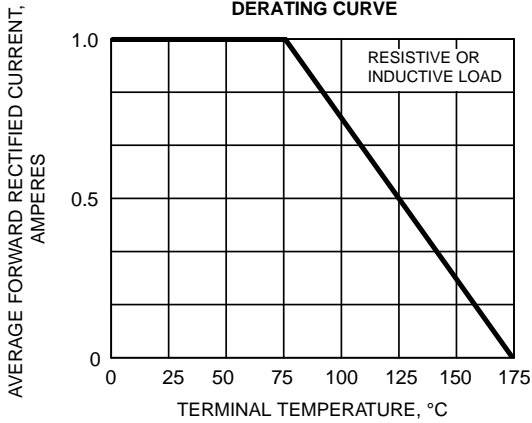


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

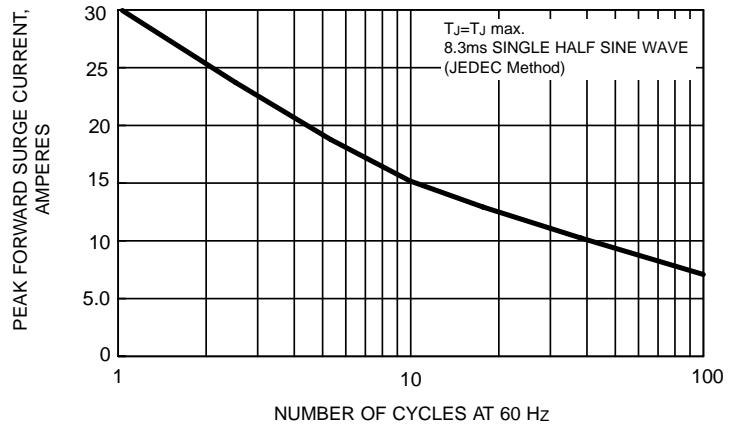


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

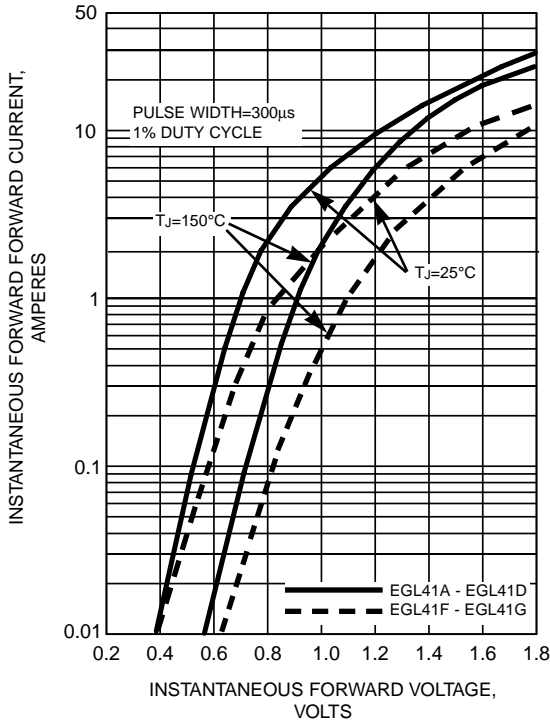


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

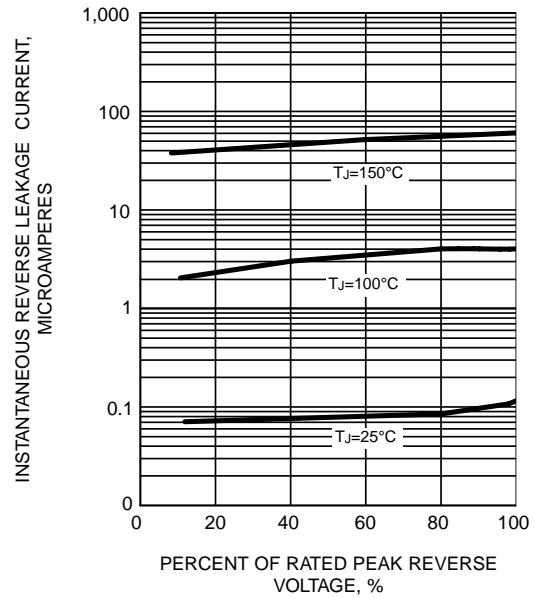


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

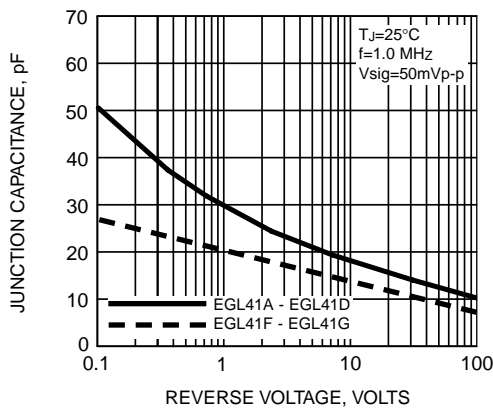


FIG. 6 - TYPICAL TRANSIENT THERMAL IMPEDANCE

