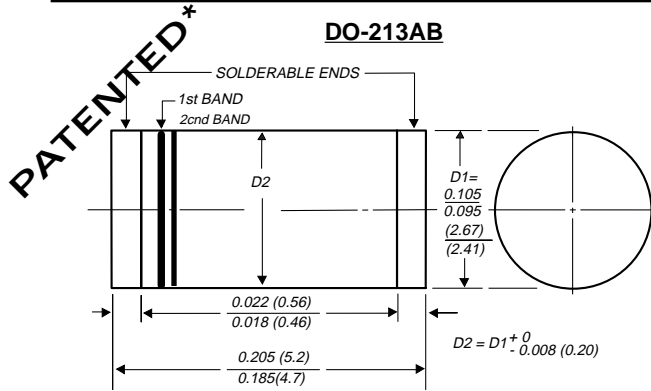


BYM12-50 THRU BYM12-400 EGL41A THRU EGL41G

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

SUPER RECTIFIER

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	VRRM	50	100	150	200	300	400	Volts
Maximum RMS voltage	VRMS	35	70	105	140	210	280	Volts
Maximum DC blocking voltage	VDC	50	100	150	200	300	400	Volts
Maximum average forward rectified current at TT=75°C	l(AV)	1.0						Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	30.0						Amps
Maximum instantaneous forward voltage at 1.0A	VF	1.0				1.25		Volts
Maximum DC reverse current at rated DC blocking voltage	IR	5.0 50.0						μA
Maximum reverse recovery time (NOTE 1)	trr	50.0						ns
Typical junction capacitance (NOTE 2)	CJ	20.0				14.0		pF
Maximum thermal resistance (NOTE 3) (NOTE 4)	RθJA RθJT	60.0 30.0						°C/W
Operating junction and storage temperature range	TJ, TSTG	-65 to +175						°C

NOTES:

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

(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

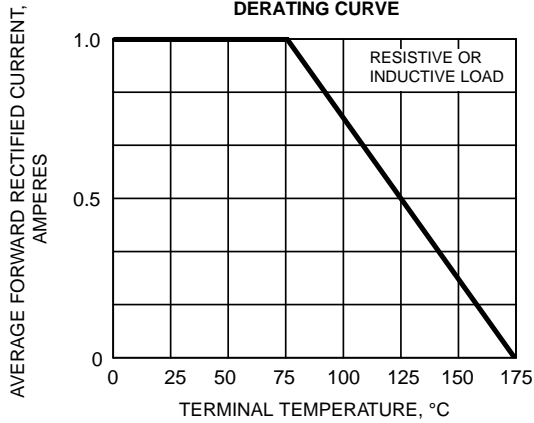


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

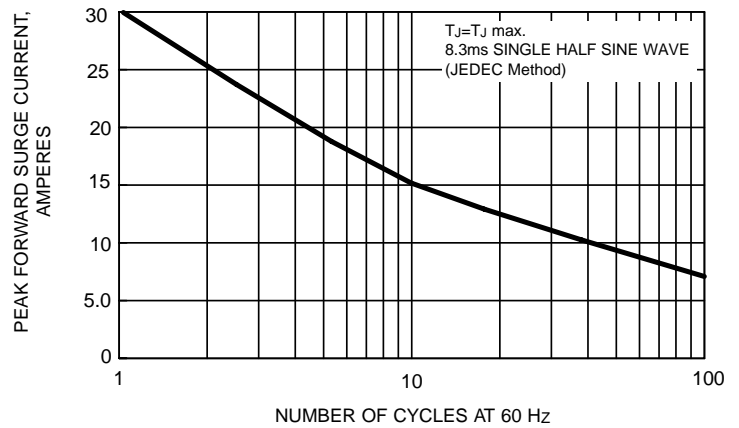


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

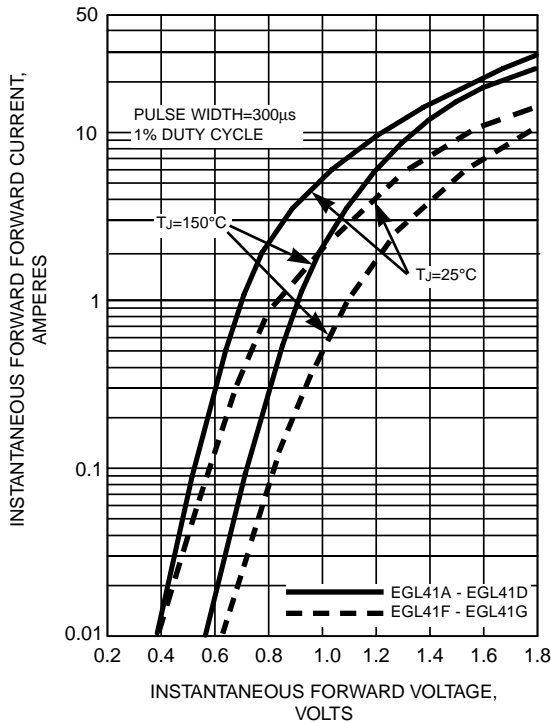


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

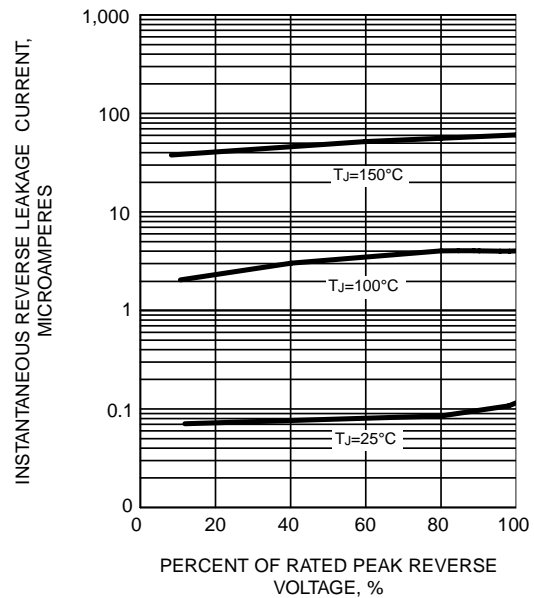


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

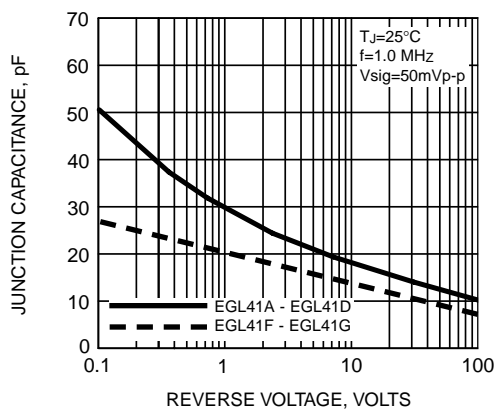


FIG. 6 - TYPICAL TRANSIENT THERMAL IMPEDANCE

