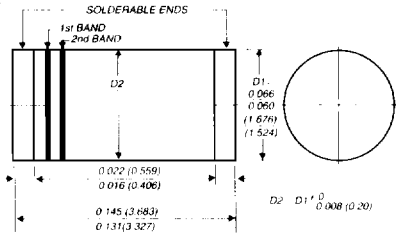
BYM07-50 THRU BYM07-400
EGL34A THRU EGL34G

SURFACE MOUNT GLASS PASSIVATED JUNCTION FAST SWITCHING RECTIFIER

***Reverse Voltage** - 50 to 400 Volts* ***Forward Current** - 0.5 Ampere*

PATENTED*

DO-213AA



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*

SUPERECTIFIER

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 switching time device: 1st band is Red		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°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 T_A=25°C at rated DC blocking voltage T_A=125°C	I_R	5.0 50.0						µA
Maximum full load reverse current, full cycle average at T_A=55°C	$I_{R(AV)}$	50.0						µA
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						°C/W
Operating junction and storage temperature range	T_J, T_{STG}	-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

FIG. 1 - FORWARD CURRENT DERATING CURVE

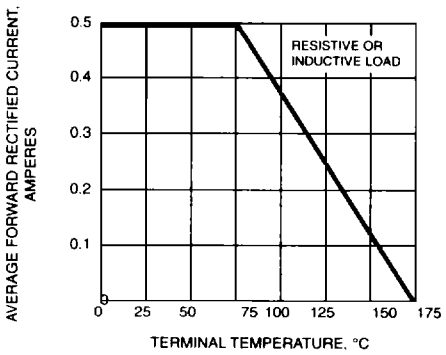


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

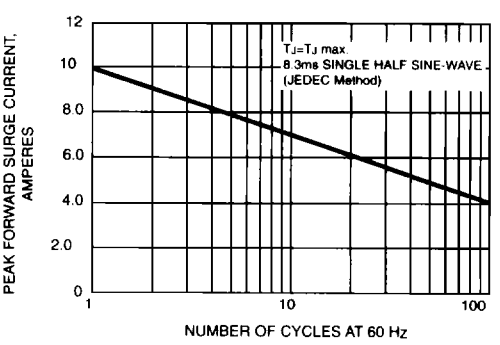


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

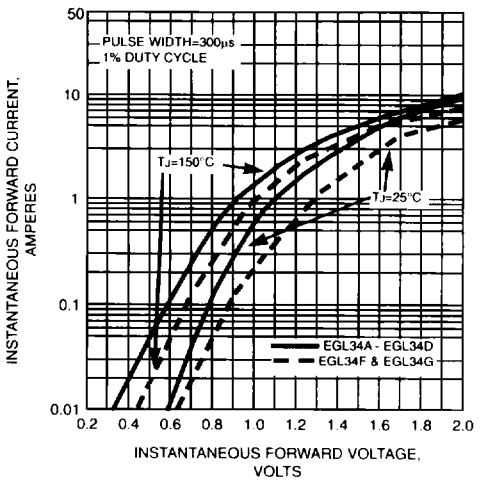


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

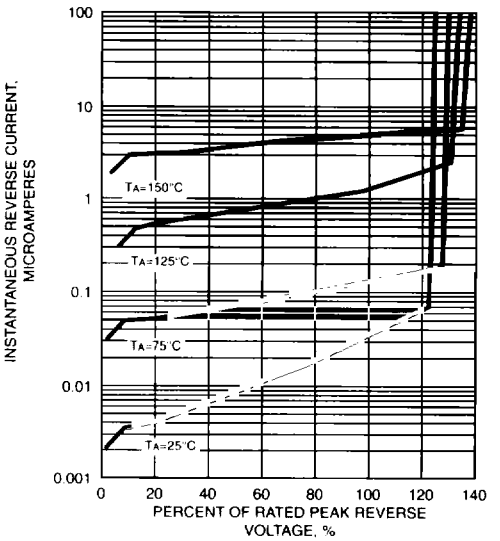


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

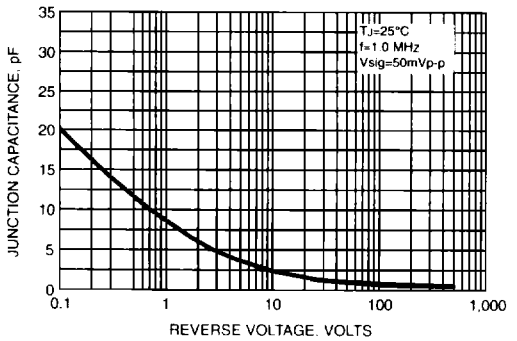


FIG. 6 - TYPICAL TRANSIENT THERMAL IMPEDANCE