

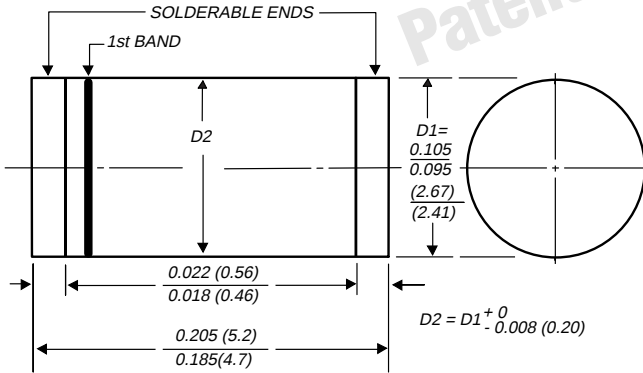
BYM11-50 THRU BYM11-1000 RGL41A THRU RGL41M

Surface Mount Glass Passivated Junction Fast Switching Rectifier

Reverse Voltage 50 to 1000 V Forward Current 1.0 A



DO-213AB



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 Laboratories Flammability Classification 94V-0
- Capable of meeting environmental standards of MIL-S-19500
- For surface mount applications
- High temperature metallurgically bonded construction
- Cavity-free glass passivated junction
- Fast switching for high efficiency
- High temperature soldering guaranteed: 450°C/5 seconds at terminals. Complete device sub-mersible 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 & Thermal Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOLS	BYM11 -50	BYM11 -100	BYM11 -200	BYM11 -400	BYM11 -600	BYM11 -800	BYM11 -1000	UNITS
Fast switching time device: 1st band is Red		RGL 41A	RGL 41B	RGL 41D	RGL 41G	RGL 41J	RGL 41K	RGL 41M	
Polarity color bands (2nd Band)		Gray	Red	Orange	Yellow	Green	Blue	Violet	
Maximum repetitive peak reverse voltage	V _{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V _{RMS}	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V _{DC}	50	100	200	400	600	800	1000	V
Maximum average forward rectified current at T _T =55°C	I _{F(AV)}	1.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	30							A
Maximum full load reverse current, full cycle average at T _A =55°C	I _{R(AV)}	50							μA
Maximum thermal resistance (NOTE 1)	R _{θJA}	75							°C/W
(NOTE 2)	R _{θJT}	30							
Operating junction and storage temperature range	T _J , T _{STG}	-65 to +175							°C

Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOLS	BYM11 -50	BYM11 -100	BYM11 -200	BYM11 -400	BYM11 -600	BYM11 -800	BYM11 -1000	UNITS
Maximum instantaneous forward voltage at 1.0A	V _F	1.3							V
Maximum DC reverse current T _A =25°C at rated DC blocking voltage T _A =125°C	I _R	5.0 50							μA
Maximum reverse recovery time at I _F =0.5A, I _R =1.0A, I _{rr} =0.25A	t _{rr}	150				250	500		ns
Typical junction capacitance at 4.0V, 1MHz	C _J	15							pF

NOTES:

- (1) Thermal resistance from junction to ambient, 0.24 x 0.24" (6.0 x 6.0mm) copper pads to each terminal
(2) 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 (T_A = 25°C unless otherwise noted)

FIG. 1 - FORWARD CURRENT DERATING CURVE

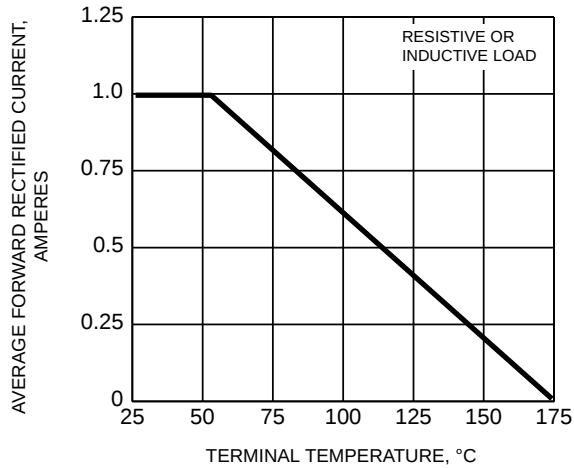


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

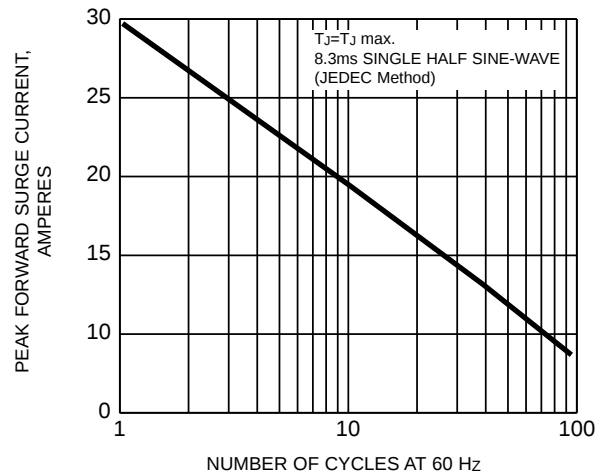


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

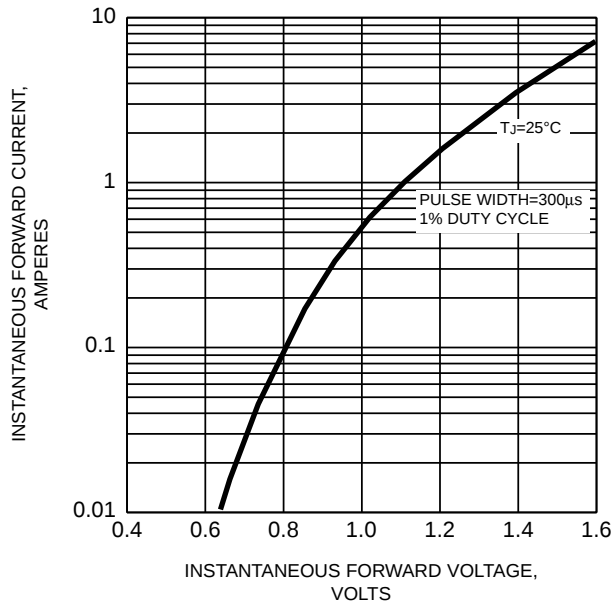


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

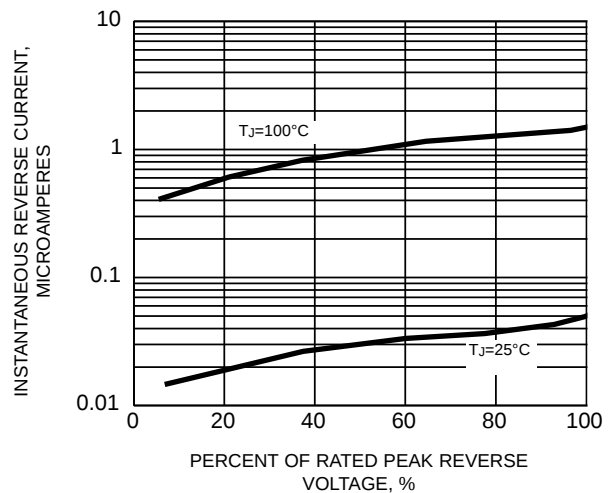


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

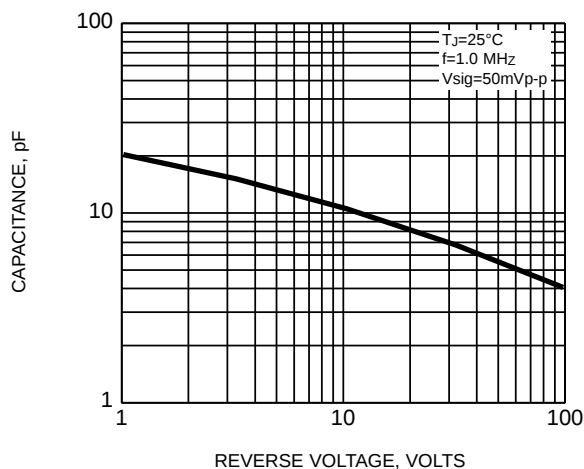


FIG. 6 - TYPICAL TRANSIENT THERMAL IMPEDANCE

