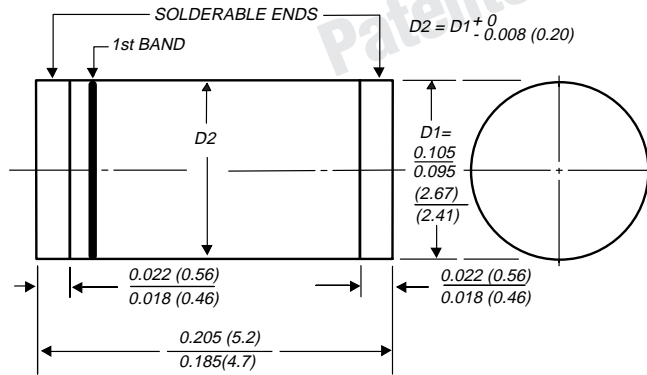




Surface Mount Glass Passivated Junction Fast Switching Rectifier

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 oz., 0.0046 g

Packaging codes/options:

26/5K per 13" Reel (12mm tape)

46/1.5K per 7" Reel (12mm tape)

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		RGL41A	RGL41B	RGL41D	RGL41G	RGL41J	RGL41K	RGL41M	
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 at rated DC blocking voltage	I _R	5.0							µA
T _A =25°C		50							
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

Vishay Semiconductors
formerly General Semiconductor

Ratings and Characteristic Curves ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Fig 1 – Forward Current Derating Curve

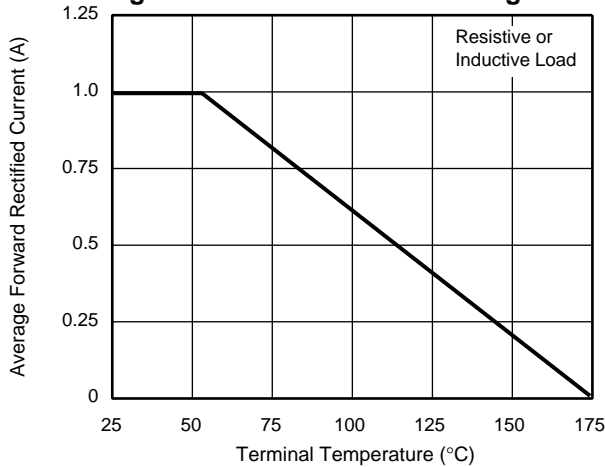


Fig 2 – Maximum Non-repetitive Peak Forward Surge Current

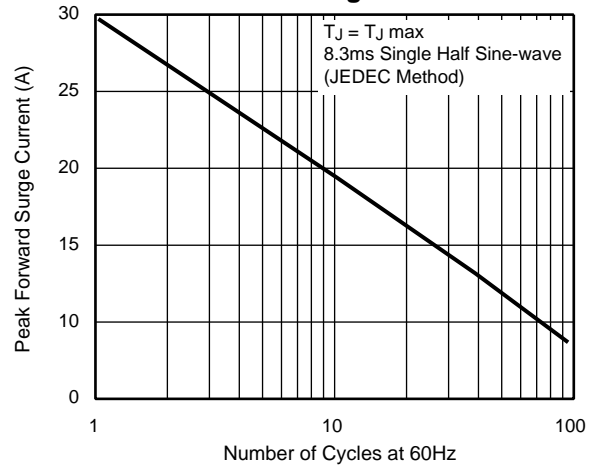


Fig 3 – Typical Instantaneous Forward Characteristics

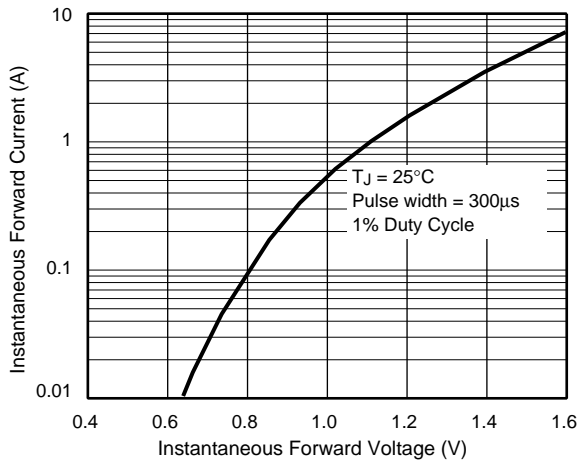


Fig 4 – Typical Reverse Characteristics

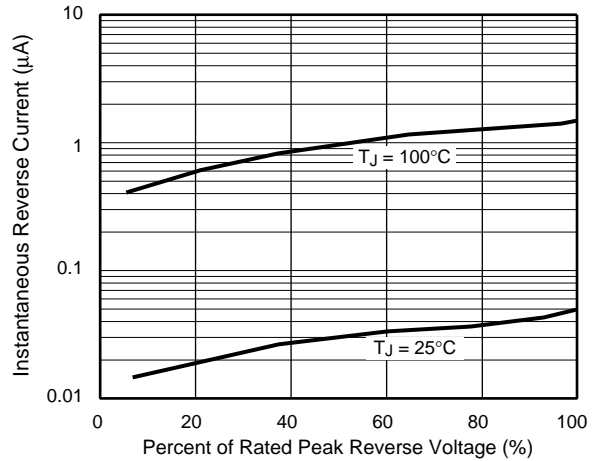


Fig 5 – Typical Junction Capacitance

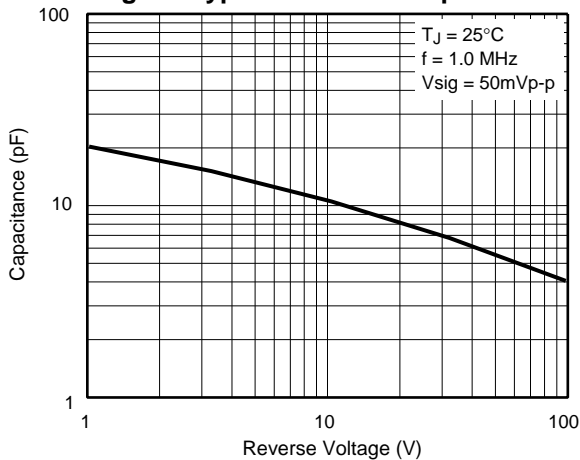


Fig. 6 – Typical Transient Thermal Impedance

