Vishay Semiconductors
formerly General Semiconductor

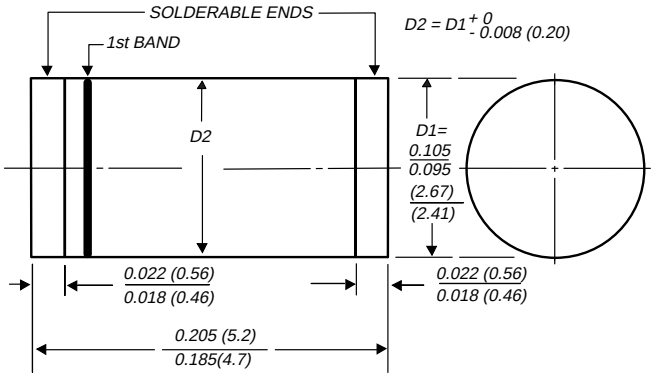
Surface Mount Glass Passivated Junction Rectifiers

Rev. Voltage 50 to 1000V
Forward Current 1.0A

SUPERECTIFIER®

Patented*

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
- High temperature soldering guaranteed: 450°C/5 seconds at terminals. Complete device sub-mersible temperature of 265°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: 0.0046 oz., 0.116 g

Maximum Ratings & Thermal Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Standard recovery device: 1st band is white	Symbol	BYM10 -50 GL41A	BYM10 -100 GL41B	BYM10 -200 GL41D	BYM10 -400 GL41G	BYM10 -600 GL41J	BYM10 -800 GL41K	BYM10 -1000 GL41M	BYM10 GL41T	BYM10 GL41Y	Unit
Polarity color bands (2nd Band)		Gray	Red	Orange	Yellow	Green	Blue	Violet	White	Brown	
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	1300	1600	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	910	1120	V
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	1300	1600	V
Maximum average forward rectified current (See Fig. 1)	$I_{F(AV)}$	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 = 75°C	$I_{R(AV)}$	30									µA
Typical thermal resistance (Note 1) (Note 2)	$R_{\theta JA}$ $R_{\theta JT}$	75 30									°C/W
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.

Maximum instantaneous forward voltage at 1.0A	V_F	1.1	1.2	V
Maximum DC reverse current at rated DC blocking voltage T_A = 25°C T_A = 125°C	I_R	10 50		µA
Typical junction capacitance at 4.0V, 1MHz	C_J	8.0		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

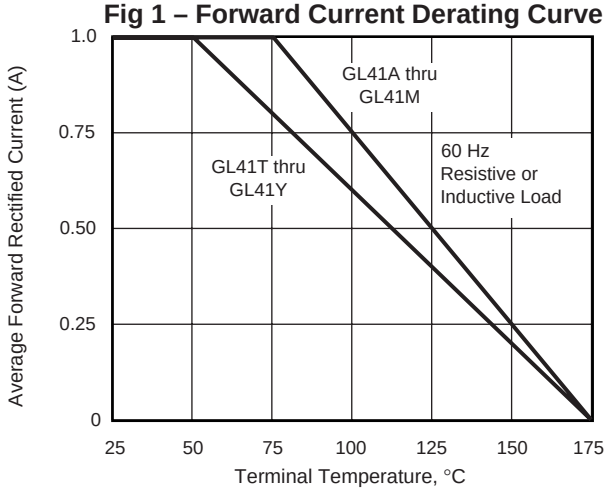


Fig 2 – Maximum Non-repetitive Peak Forward Surge Current

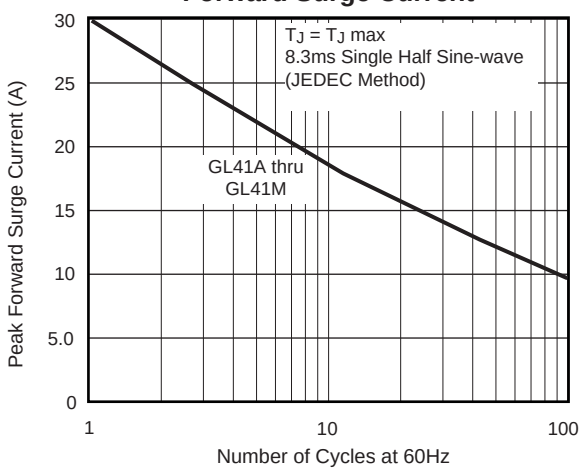


Fig 3 – Typical Instantaneous Forward Characteristics

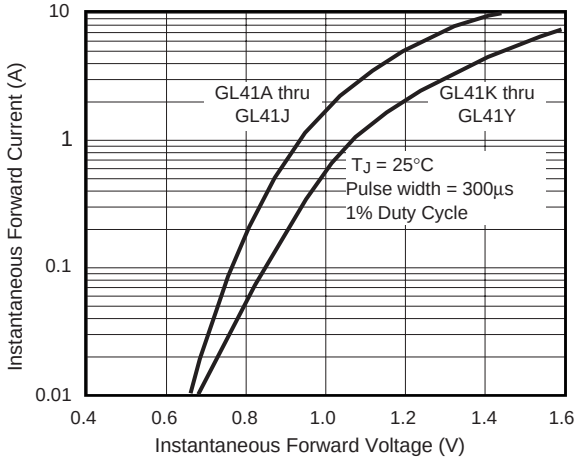


Fig 4 – Maximum Non-repetitive Peak Forward Surge Current

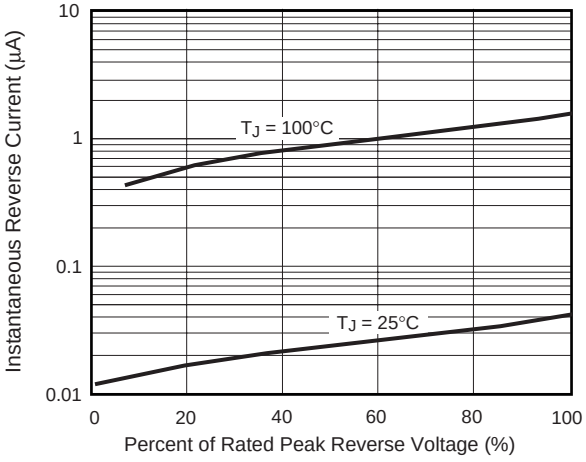


Fig 5 – Typical Junction Capacitance

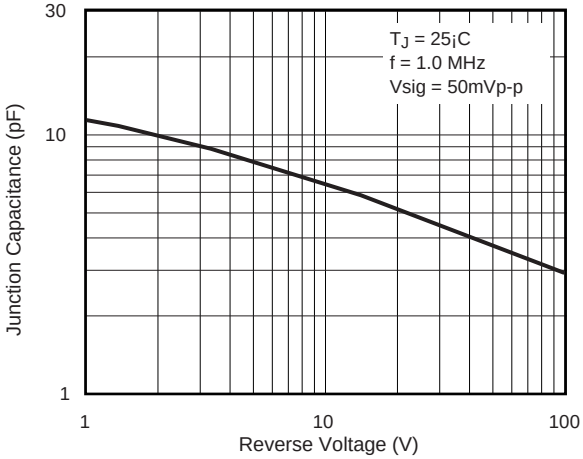


Fig. 6 – Typical Transient Thermal Impedance