



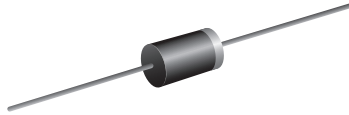
**THE DATASHEET OF  
BA159GP-E3/54**





Glass Passivated Junction Fast Switching Plastic Rectifier

SUPERECTIFIER®



DO-41 (DO-204AL)

FEATURES

- Superectifier structure for high reliability condition
• Cavity-free glass-passivated junction
• Fast switching for high efficiency
• Low leakage current, typical I\_R less than 0.1 µA
• High forward surge capability
• Solder dip 275 °C max. 10 s, per JESD 22-B106
• Material categorization: for definitions of compliance please see www.vishay.com/doc?99912



TYPICAL APPLICATIONS

For general purpose of medium frequency rectification.

MECHANICAL DATA

Case: DO-41 (DO-204AL), molded epoxy over glass body
Molding compound meets UL 94 V-0 flammability rating
Base P/N-E3 - RoHS-compliant, commercial grade

Terminals: matte tin plated leads, solderable per J-STD-002 and JESD 22-B102
E3 suffix meets JESD 201 class 1A whisker test

Polarity: color band denotes cathode end

Table with 2 columns: Parameter and Value. Includes I\_F(AV), V\_RRM, I\_FSM, t\_rr, I\_R, V\_F, T\_J max., Package, and Circuit configuration.

Table with 7 columns: Parameter, Symbol, BA157GP, BA158GP, BA159DGP, BA159GP, Unit. Includes Maximum repetitive peak reverse voltage, Maximum RMS voltage, Maximum DC blocking voltage, Maximum average forward rectified current, Peak forward surge current, and Operating junction and storage temperature range.

Table with 7 columns: Parameter, Test Conditions, Symbol, BA157GP, BA158GP, BA159DGP, BA159GP, Unit. Includes Maximum instantaneous forward voltage, Maximum DC reverse current, Maximum reverse recovery time, and Typical junction capacitance.



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Not for New Designs

# BA157GP, BA158GP, BA159DGP, BA159GP

Vishay General Semiconductor

<b>THERMAL CHARACTERISTICS</b> ( $T_A = 25\text{ }^\circ\text{C}$ unless otherwise noted)						
PARAMETER	SYMBOL	BA157GP	BA158GP	BA159DGP	BA159GP	UNIT
Typical thermal resistance	$R_{\theta JA}^{(1)}$	55				$^\circ\text{C/W}$

**Note**

(1) Thermal resistance from junction to ambient at 0.375" (9.5 mm) lead length, PCB mounted

<b>ORDERING INFORMATION</b> (Example)				
PREFERRED P/N	UNIT WEIGHT (g)	PREFERRED PACKAGE CODE	BASE QUANTITY	DELIVERY MODE
BA158GP-E3/54	0.336	54	5500	13" Diameter paper tape and reel
BA158GP-E3/73	0.336	73	3000	Ammo pack packaging



**RATINGS AND CHARACTERISTICS CURVES** ( $T_A = 25\text{ }^\circ\text{C}$  unless otherwise noted)

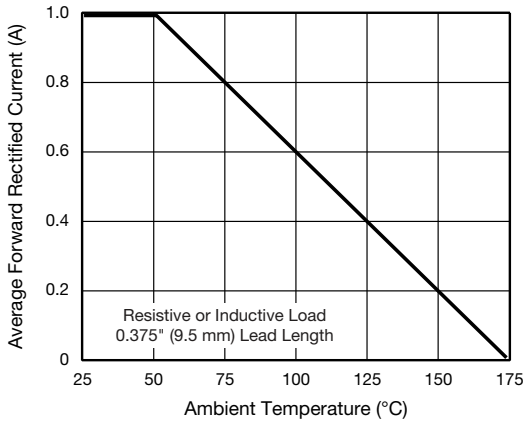


Fig. 1 - Forward Current Derating Curve

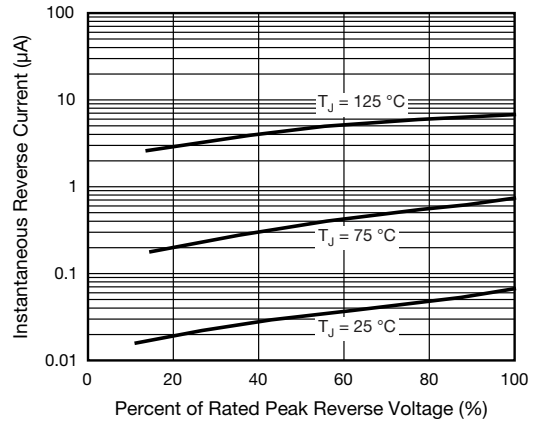


Fig. 4 - Typical Reverse Characteristics

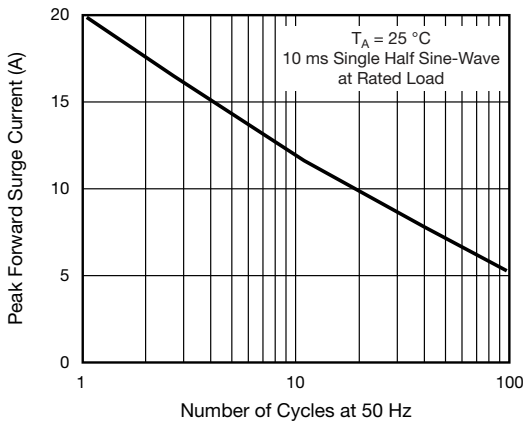


Fig. 2 - Maximum Non-repetitive Peak Forward Surge Current

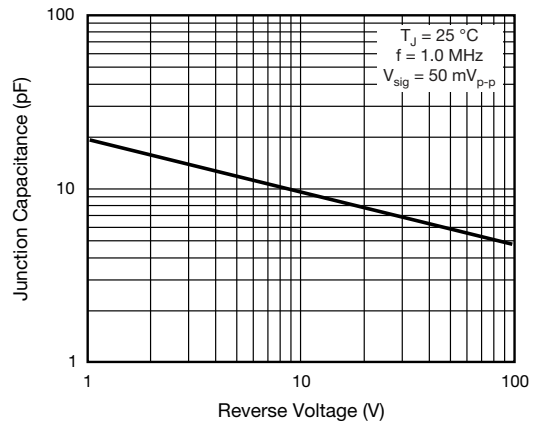


Fig. 5 - Typical Junction Capacitance

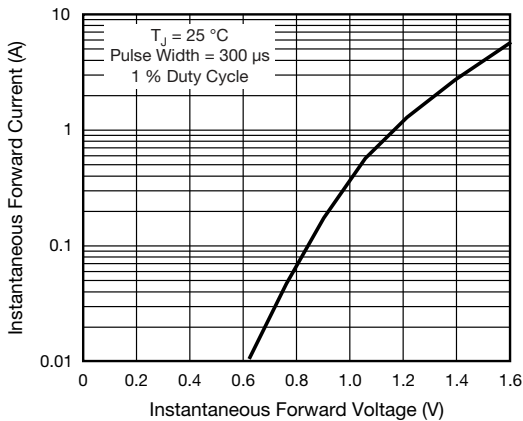


Fig. 3 - Typical Instantaneous Forward Characteristics

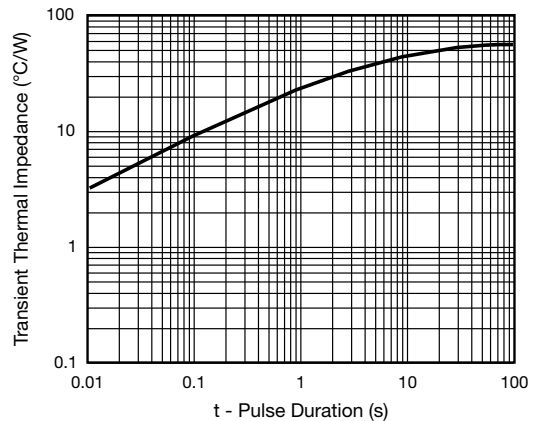
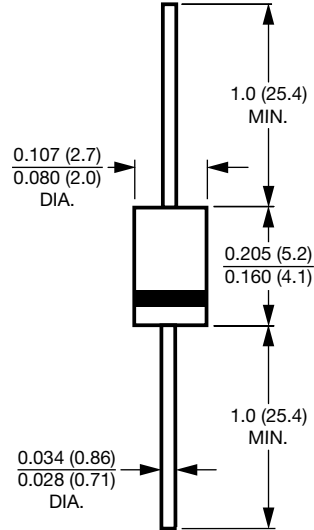


Fig. 6 - Typical Transient Thermal Impedance



PACKAGE OUTLINE DIMENSIONS in inches (millimeters)

DO-41 (DO-204AL)



Note

- Lead diameter is  $\frac{0.026}{0.023}$  (0.66 / 0.58) for suffix "E" part numbers



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