



GPP15A thru GPP15M

Vishay General Semiconductor

Glass Passivated Junction Plastic Rectifiers



FEATURES

- Glass passivated chip junction
- Ideal for printed circuit boards
- Low forward voltage drop
- High forward surge capability
- Solder dip 275 °C max. 10 s, per JESD 22-B106
- Compliant to RoHS Directive 2002/95/EC and in accordance to WEEE 2002/96/EC



RoHS
COMPLIANT

TYPICAL APPLICATIONS

For use in general purpose rectifier of power supply, inverters, freewheeling diodes, dc-to-dc converters and polarity protection application.

MECHANICAL DATA

Case: DO-204AC (DO-15), molded epoxy over passivated chip

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 the cathode end

PRIMARY CHARACTERISTICS	
$I_{F(AV)}$	1.5 A
V_{RRM}	50 V to 1000 V
I_{FSM}	50 A
V_F	0.95 V
T_J max.	150 °C

MAXIMUM RATINGS ($T_A = 25\text{ °C}$ unless otherwise noted)									
PARAMETER	SYMBOL	GPP15A	GPP15B	GPP15D	GPP15G	GPP15J	GPP15K	GPP15M	UNIT
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 0.375" (9.5 mm) lead length at $T_A = 50\text{ °C}$	$I_{F(AV)}$	1.5							A
Peak forward surge current 8.3 ms single sine-wave superimposed on rated load	I_{FSM}	50							A
Operating junction and storage temperature range	T_J, T_{STG}	- 55 to + 150							°C

ELECTRICAL CHARACTERISTICS ($T_A = 25\text{ °C}$ unless otherwise noted)										
PARAMETER	TEST CONDITIONS	SYMBOL	GPP15A	GPP15B	GPP15D	GPP15G	GPP15J	GPP15K	GPP15M	UNIT
Maximum instantaneous forward voltage	1.5 A	$T_J = 25\text{ °C}$	1.1							V
		$T_J = 125\text{ °C}$	0.95							
Maximum DC reverse current at rated DC blocking voltage		$T_J = 25\text{ °C}$	5.0							μ A
		$T_J = 125\text{ °C}$	100							
Typical junction capacitance	4.0 V, 1 MHz	C_J	8							pF

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THERMAL CHARACTERISTICS ($T_A = 25\text{ }^\circ\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	GPP15A	GPP15B	GPP15D	GPP15G	GPP15J	GPP15K	GPP15M	UNIT
Typical thermal resistance	$R_{\theta JA}^{(1)}$	50							$^\circ\text{C/W}$

Note

(1) Thermal resistance from junction to ambient at 0.375" (9.5 mm) lead length, P.C.B. mounted

ORDERING INFORMATION (Example)

PREFERRED P/N	UNIT WEIGHT (g)	PREFERRED PACKAGE CODE	BASE QUANTITY	DELIVERY MODE
GPP15J-E3/54	0.35	54	4000	13" diameter paper tape and reel
GPP15J-E3/73	0.35	73	2000	Ammo pack packaging

RATINGS AND CHARACTERISTICS CURVES

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

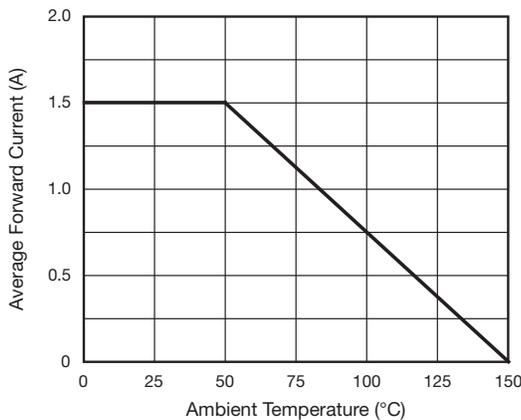


Fig. 1 - Forward Current Derating Curve

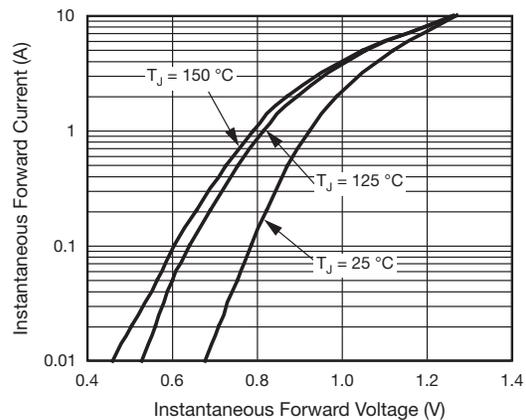


Fig. 3 - Typical Instantaneous Forward Characteristics

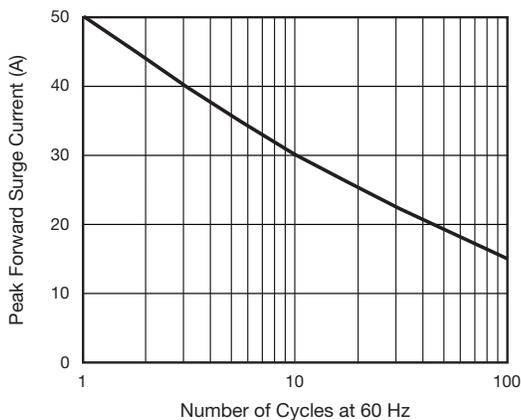


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

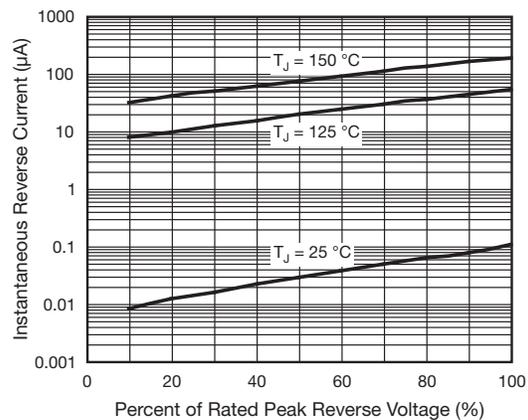


Fig. 4 - Typical Reverse Characteristics



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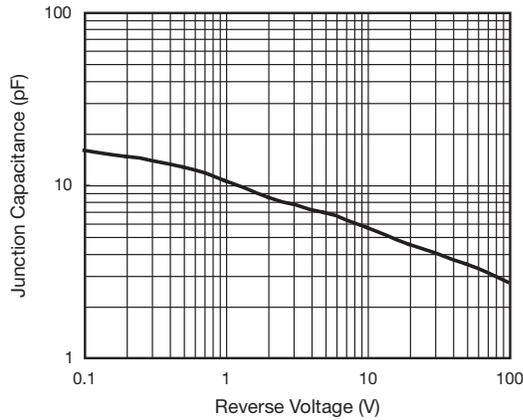


Fig. 5 - Typical Junction Capacitance

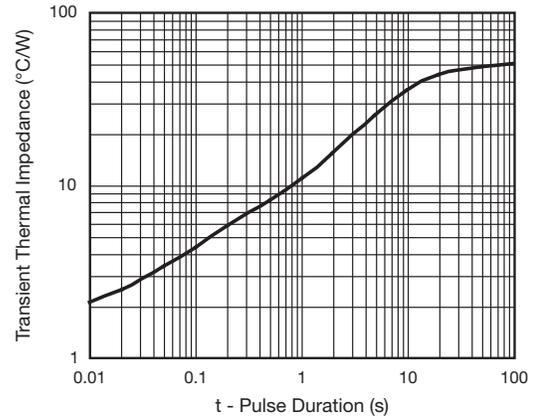
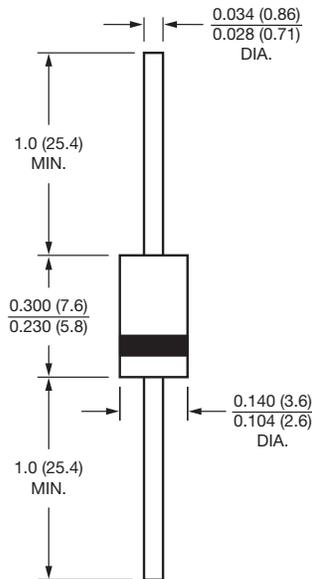


Fig. 6 - Typical Transient Thermal Impedance

PACKAGE OUTLINE DIMENSIONS in inches (millimeters)

DO-204AC (DO-15)





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