



**THE DATASHEET OF  
GPP15M-E3/73**

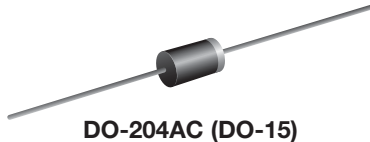




# GPP15A thru GPP15M

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	$V_F$	$T_J = 25\text{ °C}$							V
			$T_J = 125\text{ °C}$							
Maximum DC reverse current at rated DC blocking voltage		$I_R$	$T_J = 25\text{ °C}$							$\mu$ A
			$T_J = 125\text{ °C}$							
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)

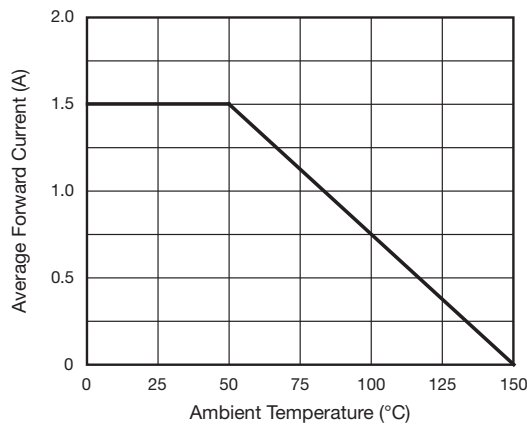


Fig. 1 - Forward Current Derating Curve

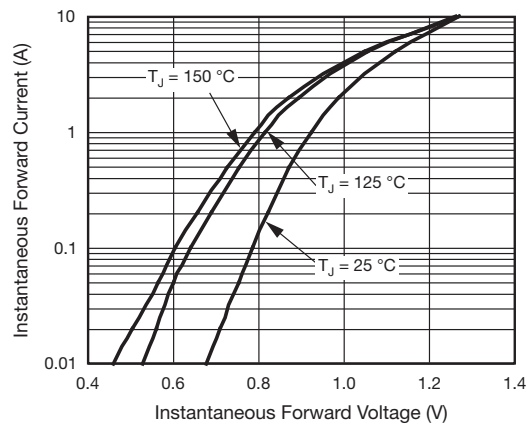


Fig. 3 - Typical Instantaneous Forward Characteristics

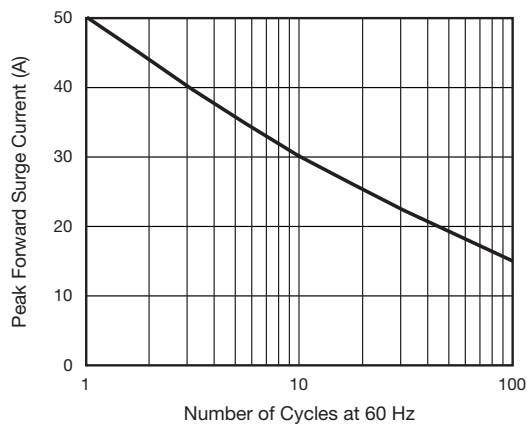


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

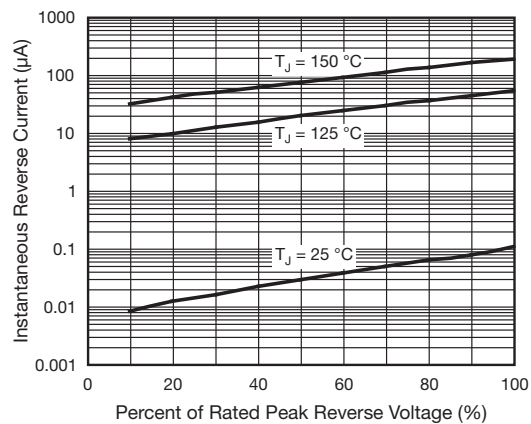


Fig. 4 - Typical Reverse Characteristics



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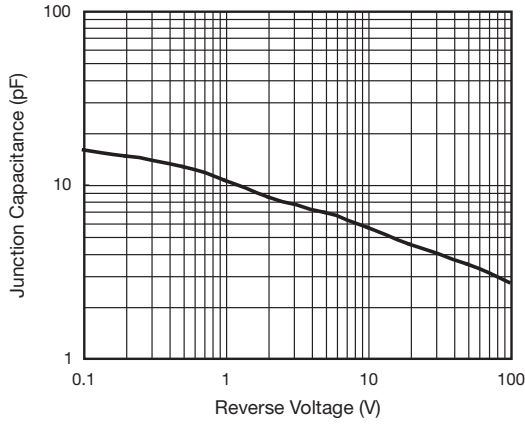


Fig. 5 - Typical Junction Capacitance

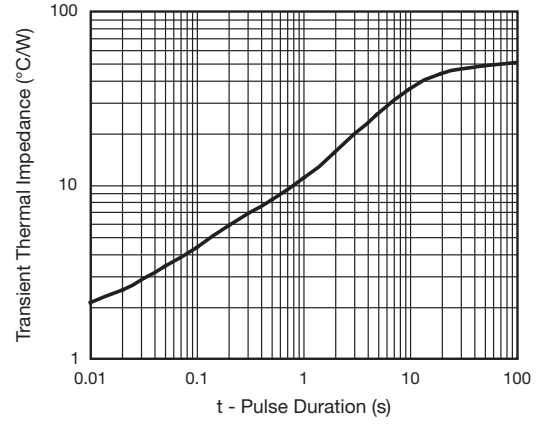
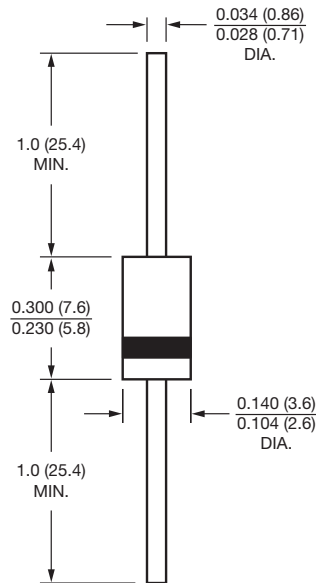


Fig. 6 - Typical Transient Thermal Impedance

## PACKAGE OUTLINE DIMENSIONS in inches (millimeters)

### DO-204AC (DO-15)





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