

## GPP10A, GPP10B, GPP10D, GPP10G, GPP10J, GPP10K, GPP10M

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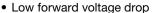
## **Glass Passivated Junction Plastic Rectifier**

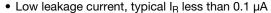


PRIMARY CHARACTERISTICS							
I <sub>F(AV)</sub> 1.0 A							
$V_{RRM}$	50 V, 100 V, 200 V, 400 V, 600 V, 800 V, 1000 V						
I <sub>FSM</sub>	30 A						
I <sub>R</sub>	5.0 μA						
$V_F$ at $I_F = 1.0 A$	1.1 V						
T <sub>J</sub> max.	150 °C						
Package	DO-204AL (DO-41)						
Diode variations	Single die						

### **FEATURES**







High forward surge capability

Meets environmental standard MIL-S-19500

• Solder dip 275 °C max. 10 s, per JESD 22-B106

 Material categorization: For definitions of compliance please see <a href="https://www.vishav.com/doc?99912">www.vishav.com/doc?99912</a>



RoHS

### TYPICAL APPLICATIONS

For use in general purpose rectification of power supplies, inverters, converters and freewheeling diodes application.

#### **MECHANICAL DATA**

**Case:** DO-204AL, 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 cathode end

MAXIMUM RATINGS (T <sub>A</sub> = 25 °C unless otherwise noted)									
PARAMETER	SYMBOL	GPP10A	GPP10B	GPP10D	GPP10G	GPP10J	GPP10K	GPP10M	UNIT
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V <sub>RMS</sub>	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 0.375" (9.5 mm) lead length at $T_A = 75\ ^{\circ}\text{C}$	I <sub>F(AV)</sub>	1.0							А
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	30						А	
Maximum full load reverse current, full cycle average 0.375" (9.5 mm) lead length T <sub>A</sub> = 75 °C	I <sub>R(AV)</sub>	30						μA	
Operating junction and storage temperature range	T <sub>J</sub> , T <sub>STG</sub>	- 55 to + 150						°C	



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<b>ELECTRICAL CHARACTERISTICS</b> (T <sub>A</sub> = 25 °C unless otherwise noted)											
PARAMETER	TEST CONDITIONS		SYMBOL	GPP10A	GPP10B	GPP10D	GPP10G	GPP10J	GPP10K	GPP10M	UNIT
Maximum instantaneous forward voltage	1.0 A		V <sub>F</sub>	1.1					>		
Maximum DC reverse current		T <sub>A</sub> = 25 °C					5.0				
at rated DC blocking voltage		T <sub>A</sub> = 100 °C	l <sub>R</sub>	50						μA	
Maximum junction capacitance	4.0 V,	1 MHz	CJ	6					pF		

THERMAL CHARACTERISTICS (T <sub>A</sub> = 25 °C unless otherwise noted)									
PARAMETER SYMBOL GPP10A GPP10B GPP10D GPP10G GPP10J GPP10K GPP10M U						UNIT			
Typical thermal resistance	R <sub>0JA</sub> (1)	50							°C/W
Typical trieffial resistance	$R_{\theta JL}$ (1)	25						C/VV	

### Note

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

ORDERING INFORMATION (Example)									
PREFERRED P/N	UNIT WEIGHT (g)	PREFERRED PACKAGE CODE	BASE QUANTITY	DELIVERY MODE					
GPP10J-E3/54	0.34	54	5500	13" diameter paper tape and reel					
GPP10J-E3/73	0.34	73	3000	Ammo pack packaging					

## **RATINGS AND CHARACTERISTICS CURVES** ( $T_A = 25$ °C unless otherwise noted)

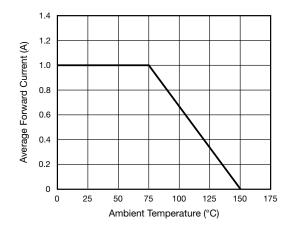


Fig. 1 - Forward Current Derating Curve

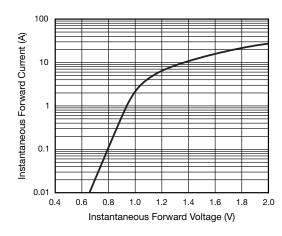


Fig. 2 - Typical Instantaneous Forward Characteristics Per Diode



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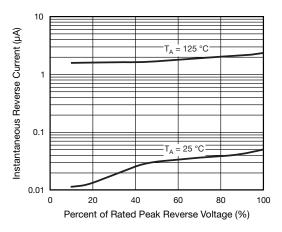


Fig. 3 - Typical Reverse Characteristics

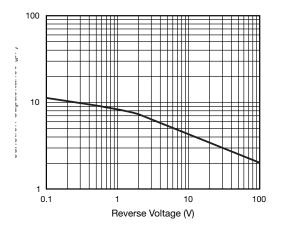
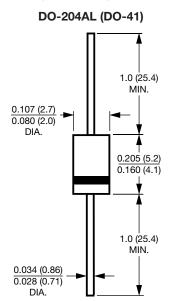


Fig. 4 - Typical Junction Capacitance

### **PACKAGE OUTLINE DIMENSIONS** in inches (millimeters)





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Revision: 13-Jun-16 1 Document Number: 91000