

GPP20A, GPP20B, GPP20D, GPP20G, GPP20J, GPP20K, GPP20M

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Vishay General Semiconductor

Glass Passivated Junction Plastic Rectifier



PRIMARY CHARACTERISTICS							
I _{F(AV)} 2.0 A							
V _{RRM}	50 V, 100 V, 200 V, 400 V, 600 V, 800 V, 1000 V						
I _{FSM}	70 A						
I _R	5.0 μA						
V _F at I _F = 2.0 A	1.1 V						
T _J max.	150 °C						
Package	DO-15 (DO-204AC)						
Circuit configuration	Single						

FEATURES

- · Glass passivated chip junction
- Low forward voltage drop



- Low leakage current, typical I_R less than 0.1 μA
- 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 www.vishay.com/doc?99912

TYPICAL APPLICATIONS

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

MECHANICAL DATA

Case: DO-15 (DO-204AC), 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 _A = 25 °C unless otherwise noted)									
PARAMETER	SYMBOL	GPP20A	GPP20B	GPP20D	GPP20G	GPP20J	GPP20K	GPP20M	UNIT
Max. repetitive peak reverse voltage	V _{RRM}	50	100	200	400	600	800	1000	V
Max. RMS voltage	V _{RMS}	35	70	140	280	420	560	700	V
Max. DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	V
Max. average forward rectified current 0.375" (9.5 mm) lead length at $T_A = 55\ ^{\circ}\text{C}$	I _{F(AV)}		2.0						
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	I _{FSM}		70						А
Operating junction and storage temperature range	T _J , T _{STG}		-55 to +150						°C



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ELECTRICAL CHARACTERISTICS (T _A = 25 °C unless otherwise noted)											
PARAMETER	TEST	CONDITIONS	SYMBOL	GPP20A	GPP20B	GPP20D	GPP20G	GPP20J	GPP20K	GPP20M	UNIT
Max. instantaneous forward voltage	2.0 A V _F		V _F	1.1				V			
Max. reverse current at rated DC blocking		T _A = 25 °C	l-	5.0							
voltage		T _A = 100 °C	IR	50					μΑ		
Max. junction capacitance	4.0 V,	1 MHz	CJ	12				pF			

THERMAL CHARACTERISTICS (T _A = 25 °C unless otherwise noted)									
PARAMETER	SYMBOL GPP20A GPP20B GPP20D GPP20G GPP20J GPP20K GPP20M UNIT								
Typical thermal resistance	R _{0JA} (1)	25							°C/W
Typical thermal resistance	$R_{\theta JL}$ (1)	20				C/VV			

Note

⁽¹⁾ Thermal resistance from junction to ambient and from junction to lead 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					
GPP20J-E3/54	0.417	54	4000	13" diameter paper tape and reel					
GPP20J-E3/73	0.417	73	2000	Ammo pack packaging					

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

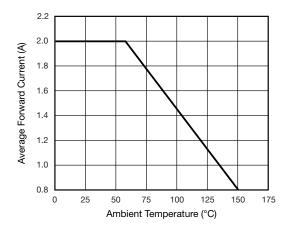


Fig. 1 - Forward Current Derating Curve

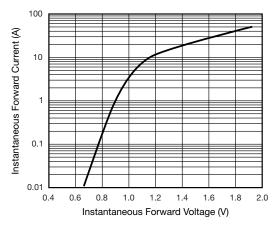


Fig. 2 - Typical Instantaneous Forward Characteristics

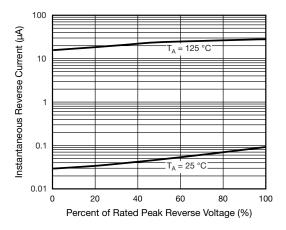


Fig. 3 - Typical Reverse Characteristics

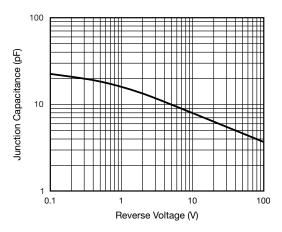


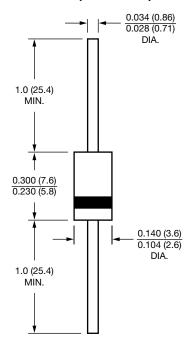
Fig. 4 - Typical Junction Capacitance

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PACKAGE OUTLINE DIMENSIONS in inches (millimeters)

DO-15 (DO-204AC)





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