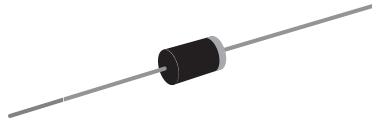


Glass Passivated Junction Rectifier



DO-204AC (DO-15)

FEATURES

- Glass passivated chip junction
- Low forward voltage drop
- Low leakage current, typical I_R less than $0.1 \mu A$
- High forward surge capability
- Meets environmental standard MIL-S-19500
- Solder dip $260^\circ C$, 40 s
- Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC



RoHS
COMPLIANT

TYPICAL APPLICATIONS

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

MECHANICAL DATA

Case: DO-204AC, molded epoxy over passivated chip
Epoxy meets UL 94V-0 flammability rating

Terminals: Matte tin plated leads, solderable per J-STD-002 and JESD22-B102

E3 suffix for consumer grade, meets JESD 201 class 1A whisker test

Polarity: Color band denotes cathode end

PRIMARY CHARACTERISTICS	
$I_{F(AV)}$	2.0 A
V_{RRM}	50 V to 1000 V
I_{FSM}	70 A
I_R	$5.0 \mu A$
V_F	1.1 V
$T_J \text{ max.}$	$150^\circ C$

MAXIMUM RATINGS ($T_A = 25^\circ C$ unless otherwise noted)									
PARAMETER	SYMBOL	GPP20A	GPP20B	GPP20D	GPP20G	GPP20J	GPP20K	GPP20M	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 0.375" (9.5 mm) lead length at $T_A = 55^\circ C$	$I_{F(AV)}$	2.0							A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	I_{FSM}	70							A
Operating junction and storage temperature range	T_J, T_{STG}	- 55 to + 150							$^\circ C$



ELECTRICAL CHARACTERISTICS ($T_A = 25\text{ }^\circ\text{C}$ unless otherwise noted)											
PARAMETER	TEST CONDITIONS		SYMBOL	GPP20A	GPP20B	GPP20D	GPP20G	GPP20J	GPP20K	GPP20M	UNIT
Maximum instantaneous forward voltage	2.0 A		V_F				1.1				V
Maximum reverse current at rated DC blocking voltage		$T_A = 25\text{ }^\circ\text{C}$ $T_A = 100\text{ }^\circ\text{C}$	I_R				5.0 50				μA
Maximum junction capacitance	4.0 V, 1 MHz		C_J				12				pF

THERMAL CHARACTERISTICS ($T_A = 25\text{ }^\circ\text{C}$ unless otherwise noted)											
PARAMETER			SYMBOL	GPP20A	GPP20B	GPP20D	GPP20G	GPP20J	GPP20K	GPP20M	UNIT
Typical thermal resistance ⁽¹⁾			$R_{\theta JA}$ $R_{\theta JL}$				25 20				$^\circ\text{C/W}$

Note:

(1) Thermal resistance from junction to ambient and from junction to lead 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
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

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

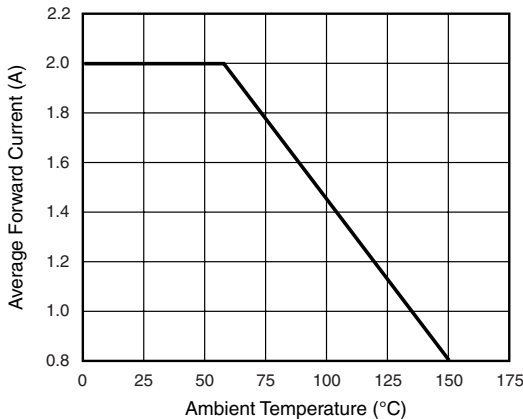


Figure 1. Forward Current Derating Curve

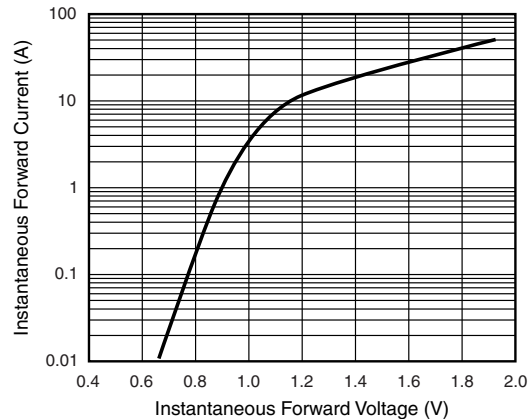


Figure 2. Typical Instantaneous Forward Characteristics

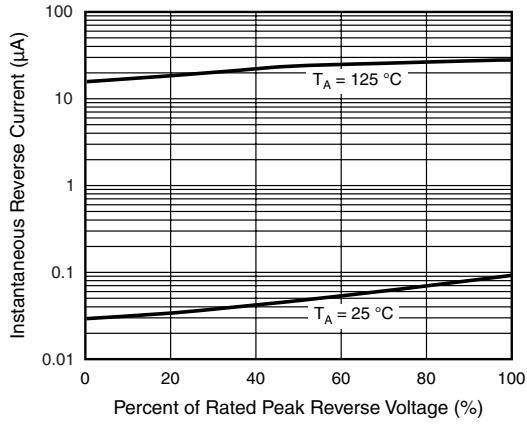


Figure 3. Typical Reverse Characteristics

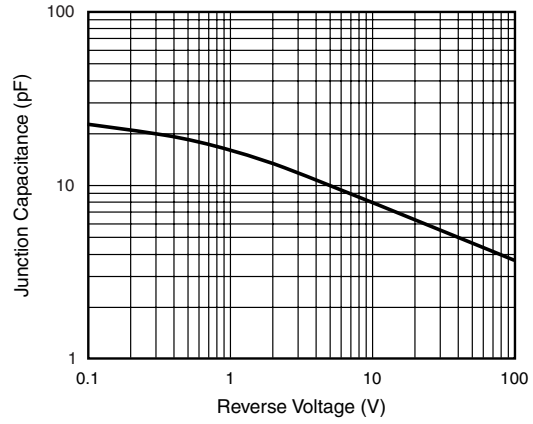
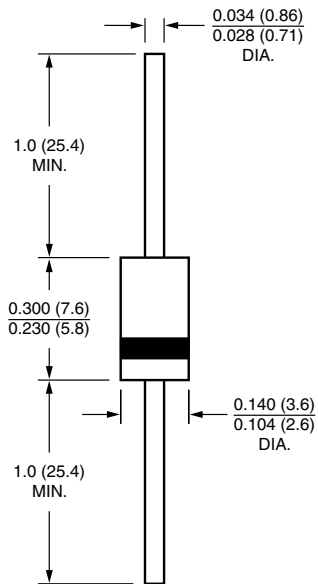


Figure 4. Typical Junction Capacitance

PACKAGE OUTLINE DIMENSIONS in inches (millimeters)

DO-204AC (DO-15)





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