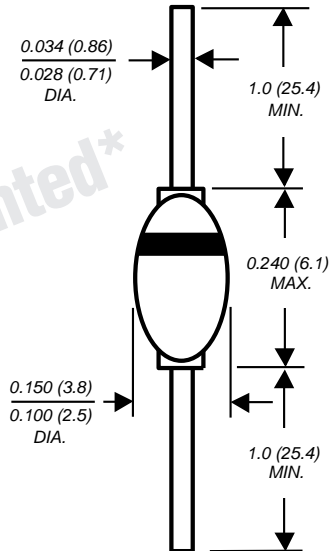


Miniature Glass Passivated Fast Switching Rectifier

Reverse Voltage 200 to 1000 V
Forward Current 1.5 A

DO204AP



Patented*

Dimensions in inches and (millimeters)

*Braze-lead assembly is covered by Patent No. 3,930,306

Features

- High temperature metallurgically bonded construction
- Hermetically sealed package
- Cavity-free glass passivated junction
- 1.5 Ampere operation at $T_A=55^\circ\text{C}$ with no thermal runaway
- Typical I_R less than $0.1\mu\text{A}$
- Capable of meeting environmental standards of MIL-S-19500
- Fast switching for high efficiency
- High temperature soldering guaranteed:
350°C/10 seconds, 0.375" (9.5mm) lead length,
5 lbs. (2.3kg) tension

Mechanical Data

Case: JEDEC DO-204AP Solid glass body

Terminals: Solder plated axial leads, solderable per MIL-STD-750, Method 2026

Polarity: Color band denotes cathode end

Mounting Position: Any

Weight: 0.02 ounce, 0.56 gram

Maximum Ratings & Thermal Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbols	BYV95A	BYV95B	BYV95C	BYV96D	BYV96E	Units
Maximum recurrent peak reverse voltage	V_{RRM}	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	140	280	420	560	700	V
Maximum DC blocking voltage	V_{DC}	200	400	600	800	1000	V
Maximum average forward rectified current 0.375" (9.5mm) lead length at $T_A=55^\circ\text{C}$	$I_{F(AV)}$	1.5					A
Peak forward surge current, 10ms single half sine-wave superimposed on rated load at $T_J=165^\circ\text{C}$	I_{FSM}	35					A
Maximum full load reverse current, full cycle average, 0.375", (9.5mm) lead length at $T_J=25^\circ\text{C}$ $T_J=165^\circ\text{C}$	$I_{R(AV)}$	1.0 150					μA
Typical thermal resistance ⁽¹⁾	$R_{\theta JA}$	55					$^\circ\text{C}/\text{W}$
Operating junction temperature range	T_J	-65 to +175					$^\circ\text{C}$
Storage temperature range	T_{STG}	-65 to +200					$^\circ\text{C}$

Electrical Characteristics Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbols	BYV95A	BYV95B	BYV95C	BYV96D	BYV96E	Units
Minimum avalanche breakdown voltage at 100 μA	$V_{(BR)}$	300	500	700	900	1100	V
Maximum instantaneous forward voltage at 1.5A $T_J=25^\circ\text{C}$ $T_J=165^\circ\text{C}$	V_F	1.6 1.35					V
Maximum DC reverse current at rated DC blocking voltage	I_R	2.0					μA
Maximum reverse recovery time at $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{rr}=0.25\text{A}$	t_{rr}	250			300		ns
Typical junction capacitance at 4.0V, 1MHz	C_J	10					pF

Notes:

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

BYV95 and BYV96 Series



Vishay Semiconductors
formerly General Semiconductor

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

Fig. 1 – Forward Current Derating Curve

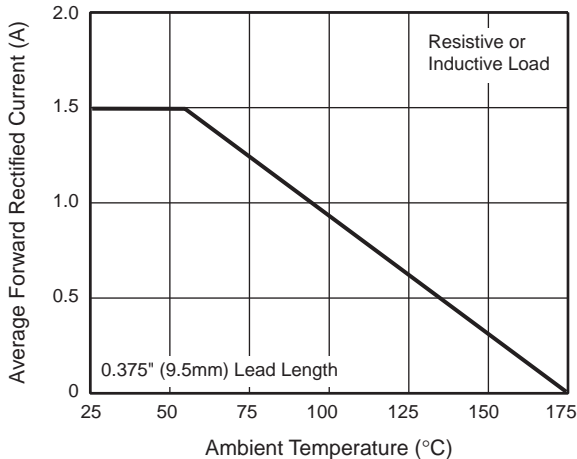


Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current

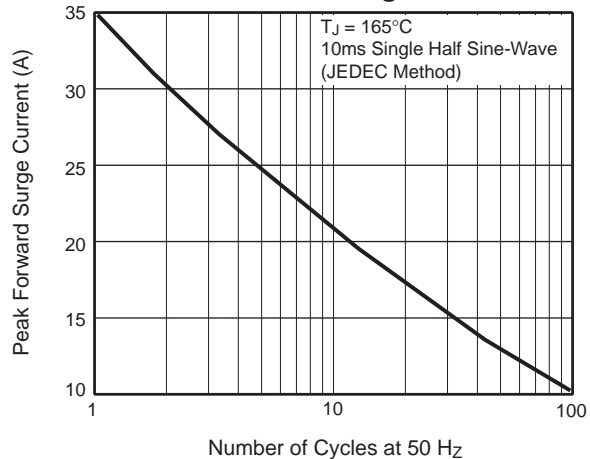


Fig. 3 – Typical Instantaneous Forward Characteristics

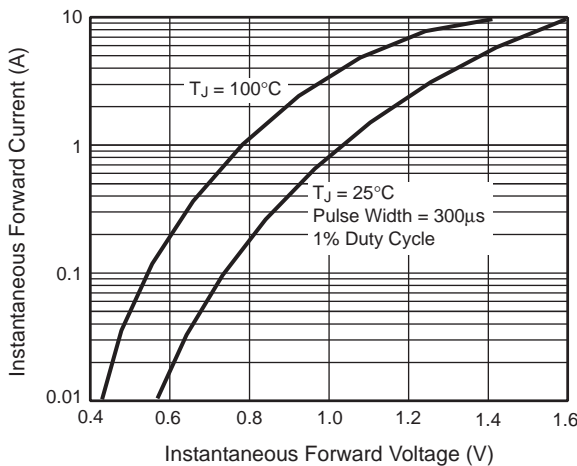


Fig. 4 – Typical Reverse Characteristics

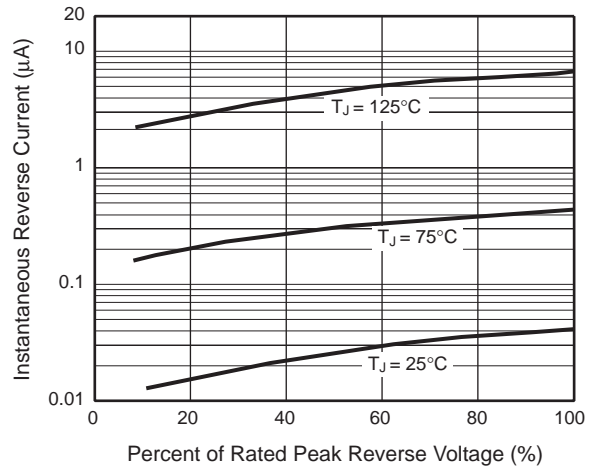


Fig. 5 – Typical Junction Capacitance

