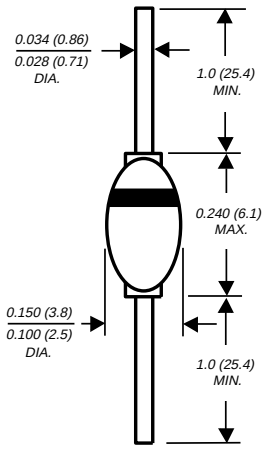
BYV95 AND BYV96 SERIES

MINIATURE GLASS PASSIVATED FAST SWITCHING RECTIFIER

Reverse Voltage - *200 to 1000 Volts* ***Forward Current -*** *1.5 Amperes*

PATENTED*

DO-204AP

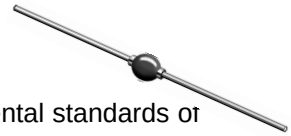


Dimensions in inches and (millimeters)

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

FEATURES

- High temperature metallurgically bonded construction
- Hermetically sealed package
- Glass passivated cavity-free junction
- 1.5 Ampere operation at T_A=55°C with no thermal runaway
- Typical I_R less than 0.1µA
- 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 AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOLS	*BYV95A*	*BYV95B*	*BYV95C*	*BYV96D*	*BYV96E*	*UNITS*
Maximum recurrent peak reverse voltage	V_{RRM}	200	400	600	800	1000	Volts
Maximum RMS voltage	V_{RMS}	140	280	420	560	700	Volts
Maximum DC blocking voltage	V_{DC}	200	400	600	800	1000	Volts
Minimum avalanche breakdown voltage at 100µA	$V_{(BR)}$	300	500	700	900	1100	Volts
Maximum average forward rectified current 0.375" (9.5mm) lead length at T_A=55°C	$I_{(AV)}$	1.5					Amps
Peak forward surge current, 10ms single half sine-wave superimposed on rated load at T_J=165°C	I_{FSM}	35.0					Amps
Maximum instantaneous forward voltage at 1.5A T_J =25°C T_J=165°C	V_F	1.6 1.35					Volts
Maximum full load reverse current, full cycle average, 0.375", (9.5mm) lead length at T_J=25°C T_J=165°C	$I_{R(AV)}$	1.0 150.0					µA
Maximum DC reverse current at rated DC blocking voltage	I_R	2.0					µA
Maximum reverse recovery time (NOTE 1)	t_{rr}	250			300		ns
Typical junction capacitance (NOTE 2)	C_J	10.0					pF
Typical thermal resistance (NOTE 3)	$R_{\Theta JA}$	55.0					°C/W
Operating junction temperature range	T_J	-65 to +175					°C
Storage temperature range	T_{STG}	-65 to +200					°C

NOTES: (1) Measured with I_F=0.5A, I_R=1.0A, I_{rr}=0.25A
(2) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts
(3) Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted

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RATINGS AND CHARACTERISTIC CURVES BYV95 AND BYV96 SERIES

FIG. 1 - FORWARD CURRENT DERATING CURVE

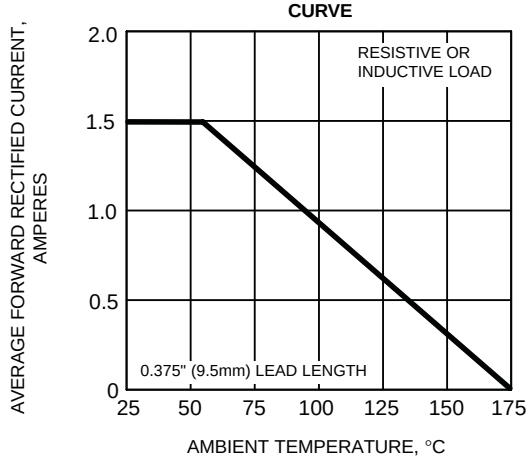


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

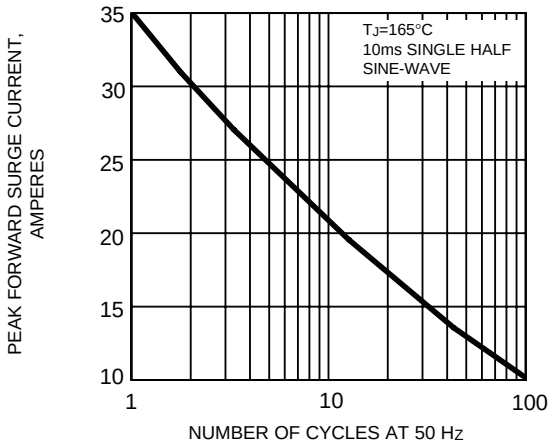


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

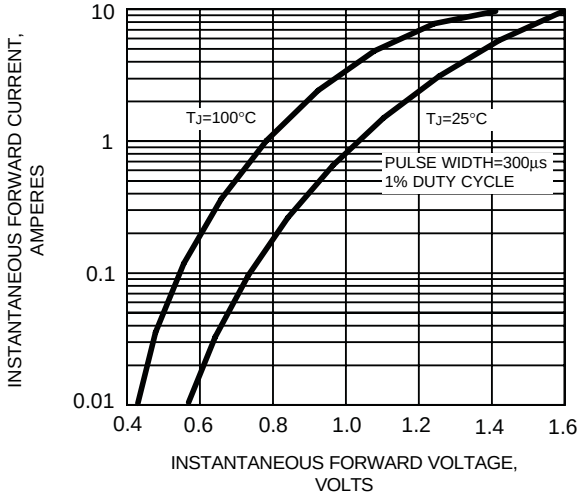


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

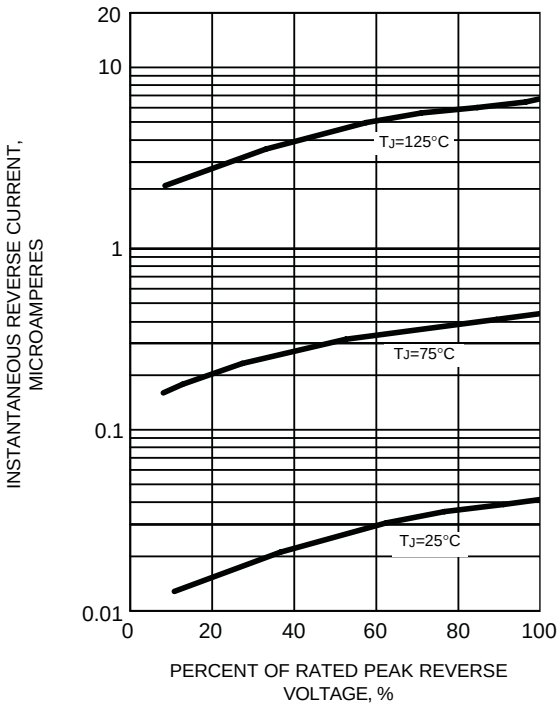
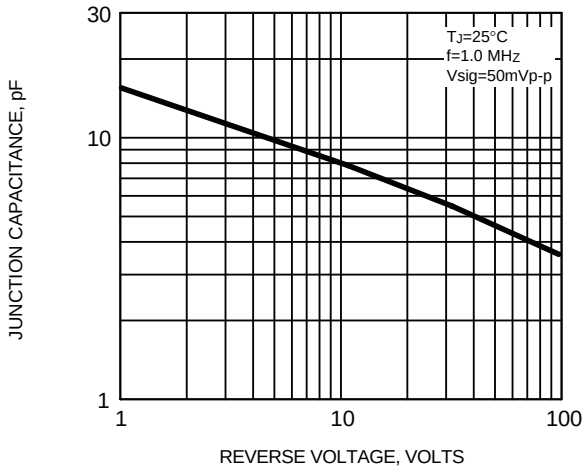


FIG. 5 - TYPICAL JUNCTION CAPACITANCE



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