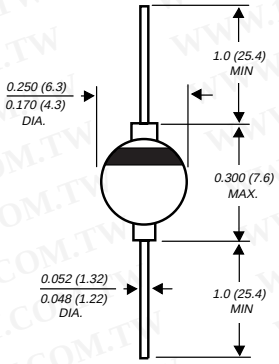
BYW72 THRU BYW76 SERIES

GLASS PASSIVATED JUNCTION FAST SWITCHING RECTIFIER

***Reverse Voltage** - 200 to 600 Volts* ***Forward Current** - 3.0 Amperes*

PATENTED*

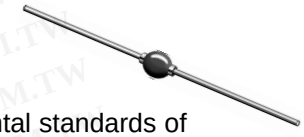
Case Style G3



Dimensions in inches and (millimeters)

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

FEATURES



- High temperature metallurgically bonded construction
- Glass passivated cavity-free junction
- Hermetically sealed package
- 3.0 ampere operation at T_A=45°C with no thermal runaway
- Typical I_R less than 0.1µA
- Capable of meeting environmental standards of MIL-S-19500
- High temperature soldering guaranteed: 350°C/10 seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension

MECHANICAL DATA

Case: 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: 0.04 ounce, 1.1grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOLS	*BYW72*	*BYW73*	*BYW74*	*BYW75*	*BYW76*	*UNITS*
Maximum repetitive peak reverse voltage	V_{RRM}	200	300	400	500	600	Volts
Maximum RMS voltage	V_{RMS}	140	210	280	350	420	Volts
Maximum DC blocking voltage	V_{DC}	200	300	400	500	600	Volts
Maximum average forward rectified current 0.375" (9.5mm) lead length at T_A=45°C	$I_{(AV)}$	3.0					Amps
Peak forward surge current 10ms single half sine-wave superimposed on rated load at T_J=150°C	I_{FSM}	60.0					Amps
Maximum instantaneous forward voltage at 3.0A	V_F	1.1					Volts
Maximum average reverse current at rated peak reverse voltage at T_A=100°C	$I_{R(AV)}$	50.0					µA
Maximum DC reverse current at rated DC blocking voltage	I_R	5.0					µA
Maximum reverse recovery time (NOTE 1)	t_{rr}	200					ns
Typical junction capacitance (NOTE 2)	C_J	40.0					pF
Typical thermal resistance (NOTE 3)	$R_{\Theta JA}$	22.0					°C/W
Operating junction temperature range	T_J	-65 to +175					°C
Storage temperature range	T_{STG}	-65 to +300					°C

NOTES:
(1) Reverse recovery test conditions: 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, with both leads attached to heat sink

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RATINGS AND CHARACTERISTIC CURVES BYW72 THRU BYW76 SERIES

FIG. 1 - FORWARD CURRENT DERATING CURVE

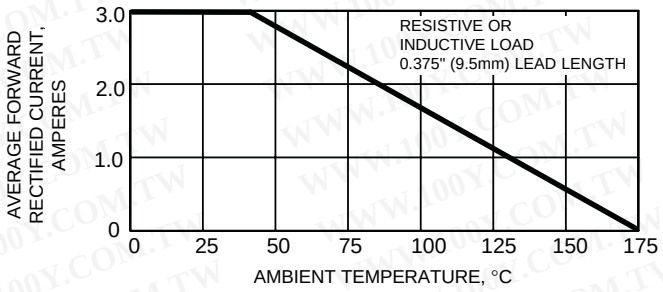


FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

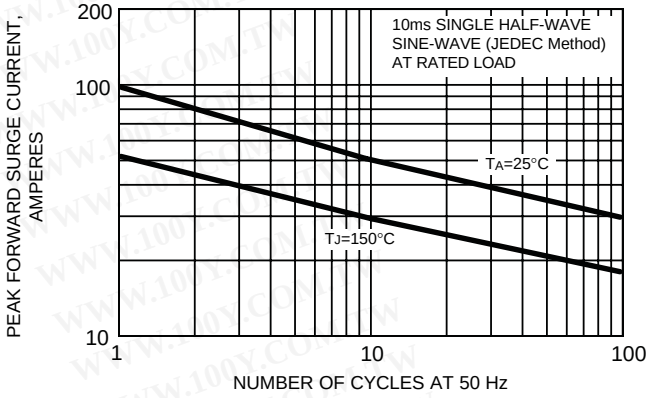


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

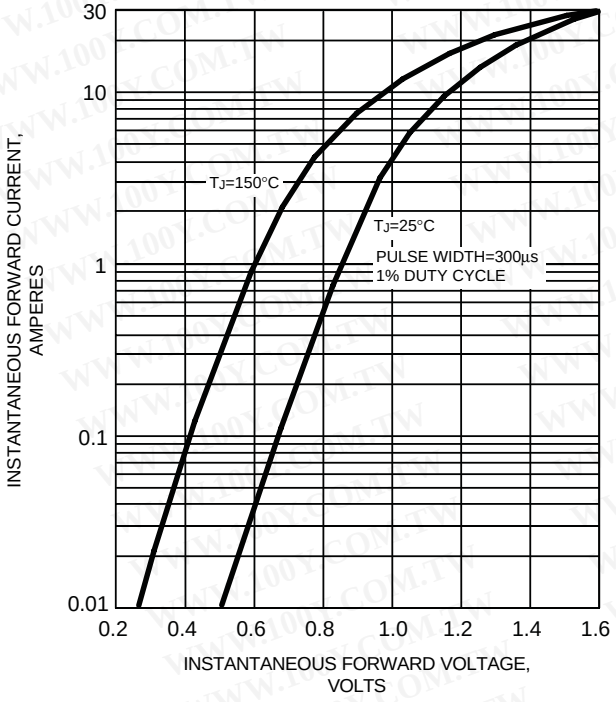


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

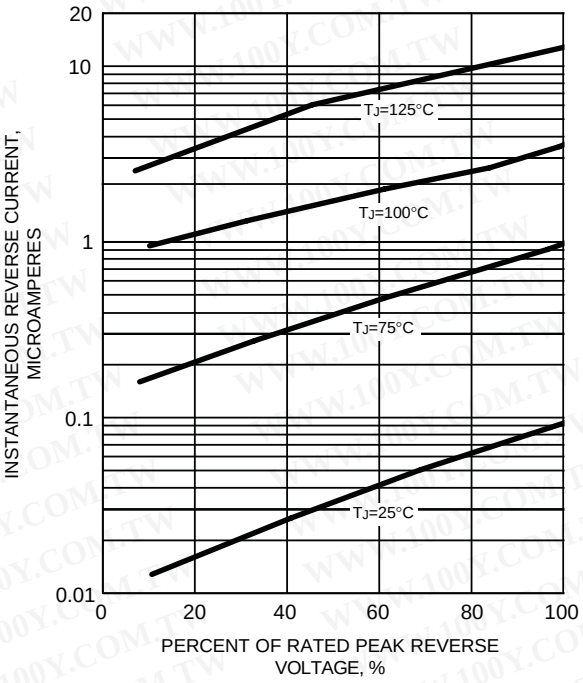
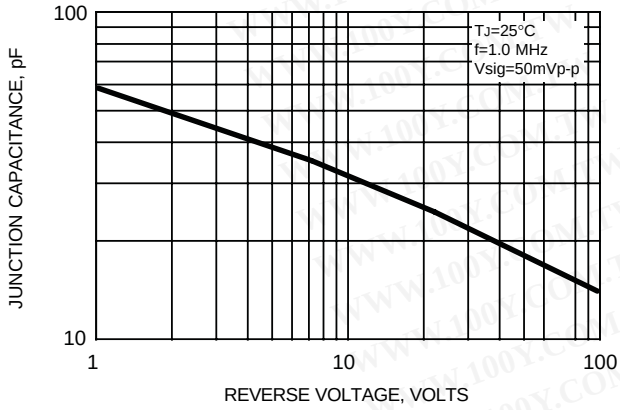


FIG. 5 - TYPICAL JUNCTION CAPACITANCE



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