

SUPER FAST RECTIFIERS

VOLTAGE RANGE: 100 --- 200 V
CURRENT: 8.0 A

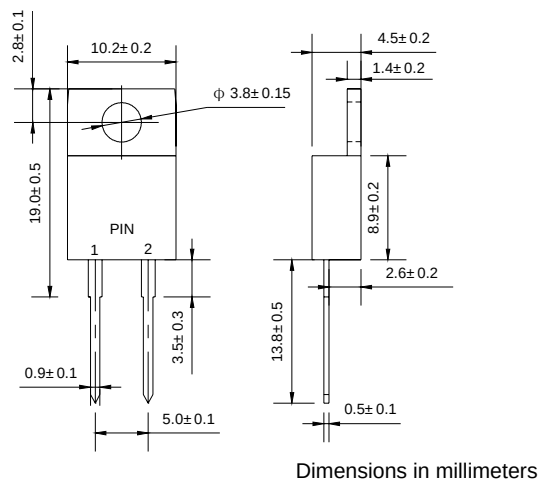
FEATURES

- ◇ Low cost
- ◇ Glass passivated junction chips
- ◇ Low leakage
- ◇ Low forward voltage drop
- ◇ High current capability
- ◇ Easily cleaned with alcohol, Isopropanol and similar solvents

MECHANICAL DATA

- ◇ Case: JEDEC TO-220AC
- ◇ Terminals: Solderable per MIL - STD-202, Method 208
- ◇ Polarity: Color band denotes cathode
- ◇ Weight: 0.069 ounces, 1.96 grams
- ◇ Mounting position: Any

TO-220AC



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 50 Hz, resistive or inductive load. For capacitive load, derate by 20%.

		BYW29 -100	BYW29 -150	BYW29 -200	UNITS
Maximum recurrent peak reverse voltage	V_{RRM}	100	150	200	V
Maximum RMS voltage	V_{RMS}	70	105	140	V
Maximum DC blocking voltage	V_{DC}	100	150	200	V
Maximum average forward rectified current 9.5mm lead length, @ $T_C=120^\circ\text{C}$	$I_{F(AV)}$	8.0			A
Peak forward surge current 10ms single half-sine-wave superimposed on rated load @ $T_J=125^\circ\text{C}$	I_{FSM}	80			A
Maximum instantaneous forward voltage @ $I_F=8.0\text{A}$	V_F	1.05			V
Maximum reverse current @ $T_A=25^\circ\text{C}$ at rated DC blocking voltage @ $T_A=100^\circ\text{C}$	I_R	10 600			μA
Maximum reverse recovery time (Note1)	t_{rr}	25			ns
Typical junction capacitance (Note1)	C_J	45			pF
Typical thermal resistance (Note2)	$R_{\theta JC}$	3.0			$^\circ\text{C/W}$
Operating junction temperature range	T_J	- 55 ----- + 150			$^\circ\text{C}$
Storage temperature range	T_{STG}	- 55 ----- + 150			$^\circ\text{C}$

NOTE: 1. Measured with $I_F=0.5\text{A}$, $I_R=1\text{A}$, $t_{rr}=0.25\text{A}$.

2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

3. Thermal resistance from junction to case.

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FIG.1 -- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

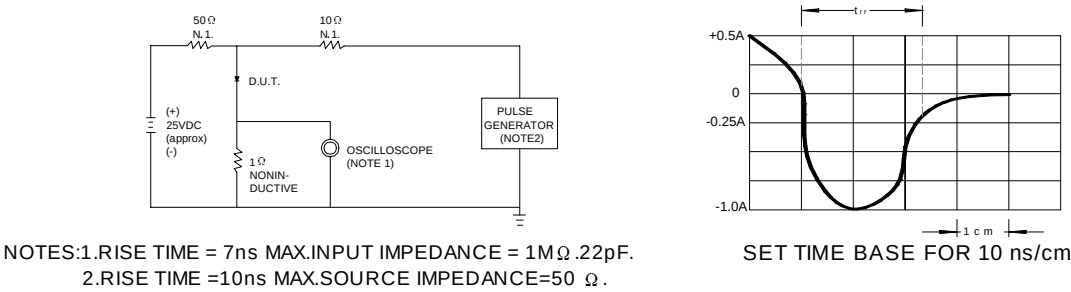


FIG.2 – TYPICAL FORWARD CHARACTERISTIC

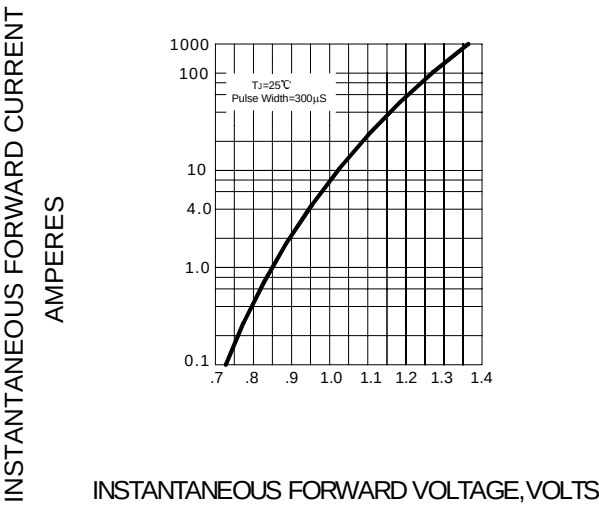


FIG.3 – TYPICAL JUNCTION CAPACITANCE

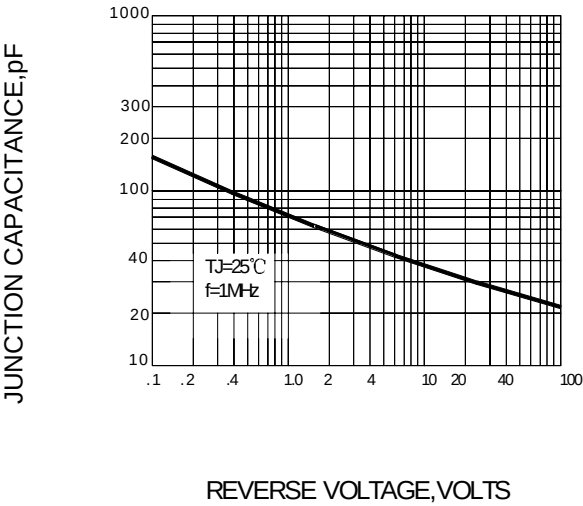


FIG.4 – PEAK FORWARD SURGE CURRENT

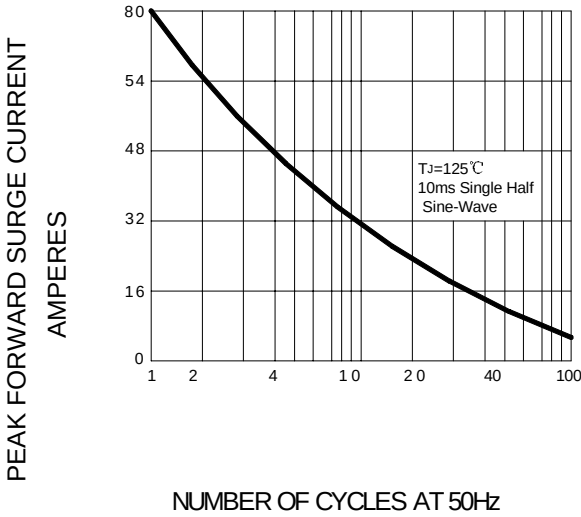


FIG.5 – FORWARD DERATING CURVE

