



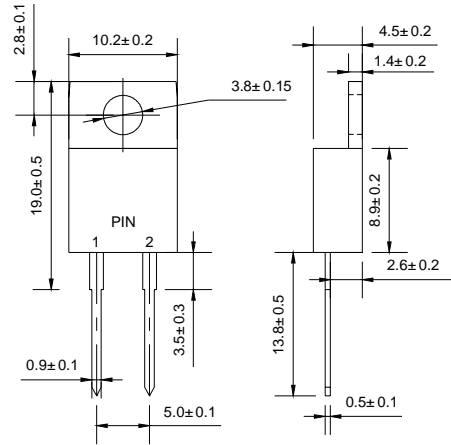
TO-220AC

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
- ◇ Polarity: Color band denotes cathode
- ◇ Weight: 0.069 ounces, 1.96 grams
- ◇ Mounting position: Any



Dimensions in millimeters

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

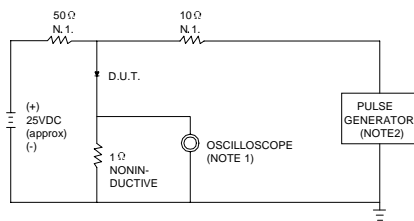
Ratings at 25°C ambient temperature unless otherwise specified.

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

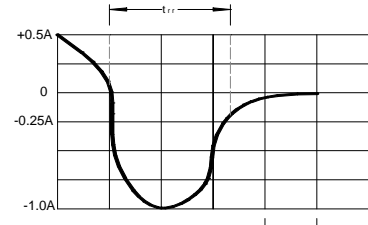
		BYW29 -100	BYW29 -150	BYW29 -200	UNITS
Maximum recurrent peak reverse voltage	V_{RRM}	100	150	200	V
Maximum RMS voltage	V_{RMS}	70	105	140	V
Maximum DC blocking voltage	V_{DC}	100	150	200	V
Maximum average forward rectified current 9.5mm lead length, @ $T_c=120^\circ C$	$I_{F(AV)}$	8.0			A
Peak forward surge current 10ms single half-sine-wave superimposed on rated load @ $T_j=125^\circ C$	I_{FSM}	80			A
Maximum instantaneous forward voltage @ $I_F=8.0A$	V_F	1.05			V
Maximum reverse current @ $T_A=25^\circ C$ at rated DC blocking voltage @ $T_A=100^\circ C$	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			$^\circ C/W$
Operating junction temperature range	T_j	- 55 ----- + 150			$^\circ C$
Storage temperature range	T_{STG}	- 55 ----- + 150			$^\circ C$

NOTE: 1. Measured with $I_F=0.5A$, $I_R=1A$, $t_{rr}=0.25A$.
 2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
 3. Thermal resistance from junction to case.

Ratings AND Characteristic Curves

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


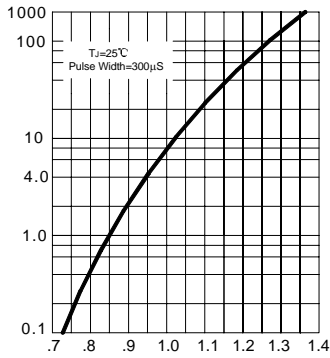
NOTES:1.RISE TIME = 7ns MAX.INPUT IMPEDANCE = 1MΩ.22pF.
2.RISE TIME =10ns MAX.SOURCE IMPEDANCE=50 Ω.



SET TIME BASE FOR 10 ns/cm

FIG.2 – TYPICAL FORWARD CHARACTERISTIC

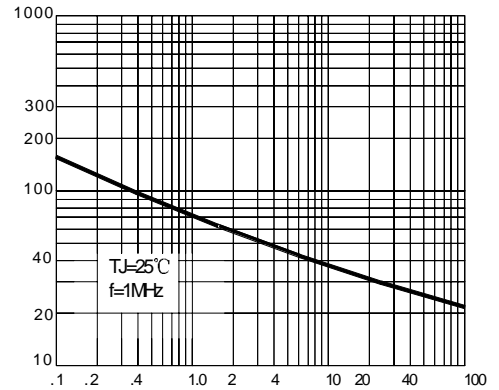
INSTANTANEOUS FORWARD CURRENT
AMPERES



INSTANTANEOUS FORWARD VOLTAGE, VOLTS

FIG.3 – TYPICAL JUNCTION CAPACITANCE

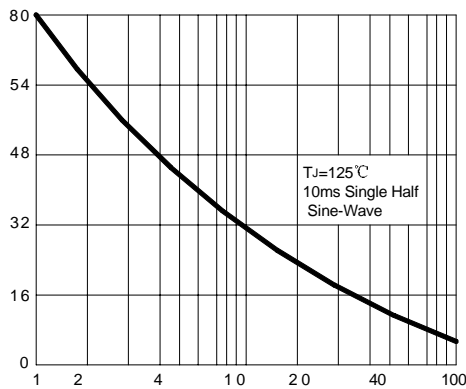
JUNCTION CAPACITANCE,pF



REVERSE VOLTAGE, VOLTS

FIG.4 – PEAK FORWARD SURGE CURRENT

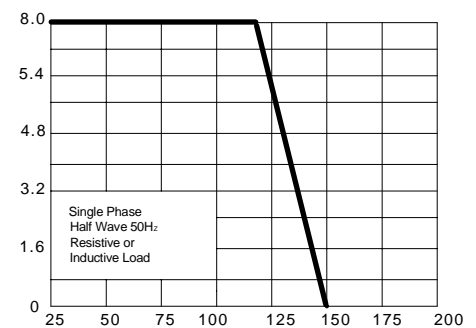
PEAK FORWARD SURGE CURRENT
AMPERES



NUMBER OF CYCLES AT 50Hz

FIG.5 – FORWARD DERATING CURVE

AVERAGE FORWARD CURRENT
AMPERES



CASE TEMPERATURE, °C