

BYX10GP SERIES

36 AMPERE MINIATURE GLASS PASSIVATED JUNCTION PLASTIC RECTIFIER

SUPERRECTIFIER®

**GENERAL
INSTRUMENT**



FEATURES

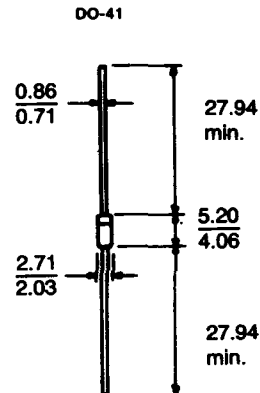
- High temperature metallurgically bonded constructed rectifiers
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Glass passivated junction in DO-41 package
- .36 ampere operation at $T_j = 55^\circ\text{C}$ with no thermal runaway
- Typical I_r less than $.2 \mu\text{A}$.
- Exceeds environmental standards of MIL-STD-19500
- High temperature soldering guaranteed:
350°C/10 seconds/.375" (9.5mm) lead length/5 lbs.
(2.3kg) tension

MECHANICAL DATA

Case: Molded plastic over glass
Terminals: Axial leads, solderable
Polarity: Color band denotes cathode
Mounting Position: Any
Weight: 0.012 ounce, 0.3 gram

VOLTAGE RANGE
1600 Volts

CURRENT
.36 Amperes



Dimensions in mm

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 current by 20%.

	BYX10GP	UNITS
Maximum Recurrent Peak Reverse Voltage	1600	V_{RRM}
Maximum Working Reverse Voltage	800	V_{RWM}
Maximum Average Forward Current .375" 9.5mm Lead Lengths at $T_j = 40^\circ\text{C}$	36	A _{av}
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	15	A _{pk}
Maximum Instantaneous Voltage at 2.0A	1.6	V _{pk}
Maximum Peak Reverse Current at Rated Peak Working Reverse Voltage $T_j = 25^\circ\text{C}$	1.0	μA
Typical Reverse Recovery Time (Note 1)	2.0	μs
Typical Junction Capacitance (note 2)	5.0	pF
Operating and Storage Temperature Range T_j, T_{stg}	-65 to +175	$^\circ\text{C}$

NOTES:

1. Measured on $I_F = 0.5\text{A}$, $I_R = 1.0\text{A}$, $I_F = 0.25\text{A}$.
2. Measured at 1.0MHz and Applied Reverse Voltage of 4.0 Volts.

RATING AND CHARACTERISTIC CURVES **BYX10GP**

FIG. 1 — FORWARD CURRENT DERATING CURVE

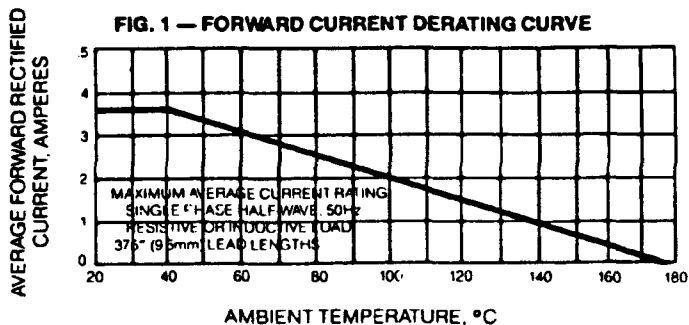


FIG. 2 — MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

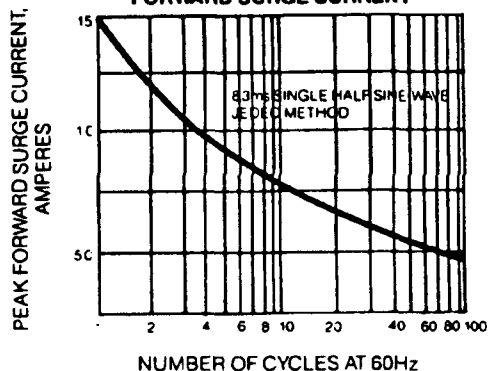


FIG. 3 — TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

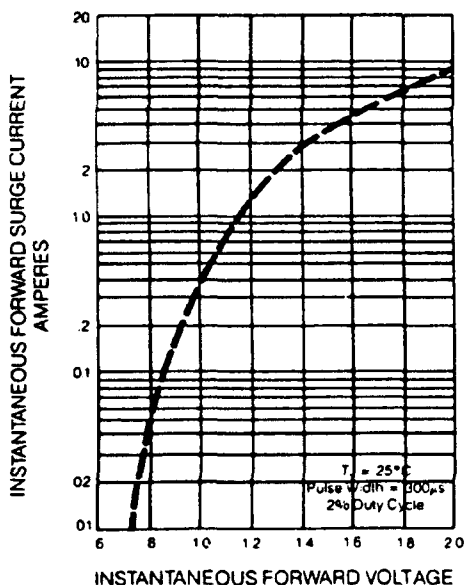


FIG. 4 — TYPICAL REVERSE CHARACTERISTICS

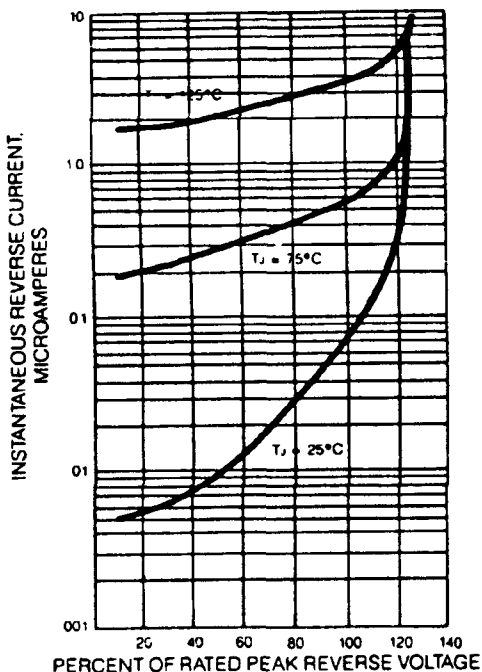


FIG. 5 — SUPERECTIFIER

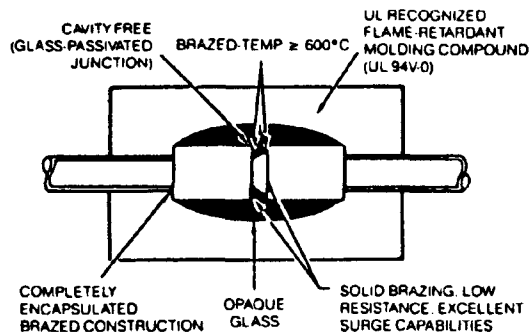


FIG. 6 — TYPICAL JUNCTION CAPACITANCE

