

# BYX10GP

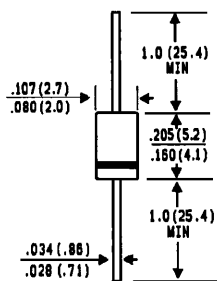
## MINIATURE GLASS PASSIVATED JUNCTION PLASTIC RECTIFIER

**Voltage - 1600 Volts    Current - .36 Amperes**

### FEATURES

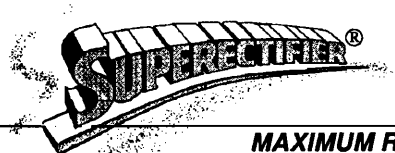
**PATENTED\***

**DO-41**



Dimensions in inches and (millimeters)

Glass-plastic encapsulation technique is covered by Patent No. 3,996,602 of 1976; brazed-lead assembly to Patent No. 3,930,306 of 1976 and glass composition by Patent No. 3,752,701 of 1973



- ♦ High temperature metallurgically bonded constructed rectifier
- ♦ Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- ♦ Glass passivated cavity-free junction in DO-41 package
- ♦ .36 Ampere operation at  $T_A = 40^\circ\text{C}$  with no thermal runaway
- ♦ Typical  $I_R$  less than  $0.1 \mu\text{A}$
- ♦ Capable of meeting environmental standards of MIL-S-19500
- ♦ High temperature soldering guaranteed  $350^\circ\text{C}/10 \text{ seconds}/.375"$ , (9.5mm) lead length at 5 lbs., (2.3kg) tension

### MECHANICAL DATA

**Case:** Molded plastic over glass  
**Terminals:** Axial leads, solderable per MIL-STD-202, Method 208  
**Polarity:** Color band denotes cathode  
**Mounting Position:** Any  
**Weight:** 0.012 ounce, .3 gram

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at  $25^\circ\text{C}$  ambient temperature unless otherwise specified.  
 Resistive or inductive load.  
 For capacitive load, derate current by 20%.

	SYMBOLS	BYX10GP	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	1600	Volts
Maximum Working Reverse Voltage	$V_{RMS}$	800	Volts
Maximum Average Forward Rectified Current .375", (9.5mm) Lead Lengths at $T_A = 40^\circ\text{C}$	$I_{(AV)}$	0.36	Amps
Peak Forward Surge Current 10ms single half sine-wave superimposed on rated load	$I_{FSM}$	15	Amps
Maximum Instantaneous Forward Voltage at 2.0A	$V_F$	1.6	Volts
Maximum Peak Reverse Current at Rated Perak Working Reverse Voltage $T_A = 25^\circ\text{C}$	$I_R$	1.0	$\mu\text{A}$
Maximum Reverse Recovery Time (Note 1)	$T_{RR}$	2.0	$\mu\text{s}$
Typical Junction Capacitance (Note 2)	$C_J$	5.0	pf
Typical Thermal Resistance (Note 3)	$R_{\theta JA}$	45.0	$^\circ\text{C/W}$
Operating and Storage Temperature Range	$T_J, T_{STG}$	-65 to +175	$^\circ\text{C}$

#### NOTES:

1. Measured on  $I_F = 0.5\text{A}$ ,  $I_R = 1.0\text{A}$ ,  $I_{rr} = 0.25\text{A}$ .
2. Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts.
3. Thermal Resistance from Junction to Ambient at .375" (9.5mm) Lead Lengths, P.C. Board Mounted.

## RATINGS AND CHARACTERISTIC CURVES BYX10GP SERIES

