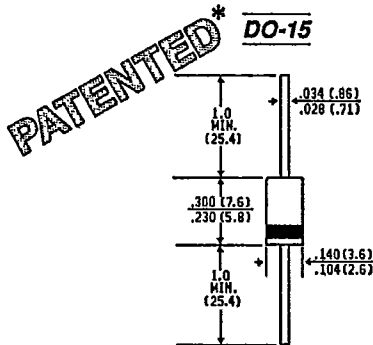


BY133GP THRU BY135GP**MINIATURE GLASS PASSIVATED JUNCTION
PLASTIC RECTIFIER****Voltage - 200 to 1300 Volts Current - 1.0 Ampere****FEATURES**

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. 3,762,701 of 1973



- ◆ High temperature metallurgically bonded constructed rectifiers
- ◆ Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- ◆ Glass passivated cavity-free junction in DO-15 package
- ◆ 1.0 Ampere operation at $T_A = 75^\circ\text{C}$ 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: $350^\circ\text{C}/10$ seconds/.375", (9.5mm) lead length at 5 lbs., (2.3kg) tension

MECHANICAL DATA**Case:** Molded plastic over glass**Terminals:** Plated Axial leads, solderable per MIL-STD-202, Method 208**Polarity:** Color band denotes cathode**Mounting Position:** Any **Weight:** 0.015 ounce, 0.4 gram**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave 60 HZ, resistive or inductive load. For capacitive load, derate current by 20%.

	SYMBOLS	BY133GP	BY134GP	BY135GP	UNITS
Maximum Non-Recurrent Peak Reverse Voltage	V_{RSM}	1600	800	200	Volts
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	1300	600	200	Volts
Maximum RMS Voltage	V_{RMS}	910	420	140	Volts
Maximum DC Blocking Voltage at $T_A = 150^\circ\text{C}$	V_{DC}	1300	600	200	Volts
*Maximum Average Forward Rectified Current 375", (9.5mm) Lead Lengths at $T_A = 75^\circ\text{C}$	$I_{(AV)}$	1.0			Amps
Peak Forward Surge Current 10 ms single half sine-wave superimposed on rated load $T_A = 25^\circ\text{C}$	I_{FSM}	50.0			Amps
Maximum Instantaneous Forward Voltage at 2.0A $T_A = 75^\circ\text{C}$	V_F	1.2			Volts
Maximum DC Reverse Current $T_A = 25^\circ\text{C}$ at Rated DC Blocking Voltage $T_A = 175^\circ\text{C}$	I_R	5.0 200			μA
Maximum Full Load Reverse Current Full Cycle $T_A = 25^\circ\text{C}$ Average, .375", (9.5 mm) Leads Length at $T_A = 75^\circ\text{C}$	$I_{R(AV)}$	5.0 200			μA
Typical Junction Capacitance (Note 1)	C_J	15.0			pf
Typical Reverse Recovery Time (Note 2)	T_{RR}	2.0			μs
Typical Thermal Resistance (Note 3)	$R_{\theta JA}$	25.0			$^\circ\text{C/W}$
Operating and Storage Temperature Range	T_J, T_{STG}	-65 to +175			$^\circ\text{C}$

NOTES:

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

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RATINGS AND CHARACTERISTIC CURVES BY133GP THRU BY135GP

FIG. 1 — FORWARD CURRENT DERATING CURVE

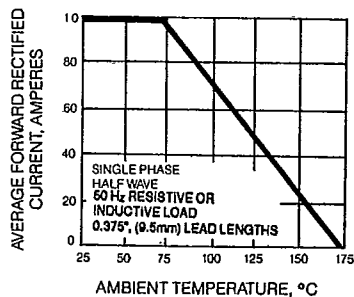


FIG. 2 — MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

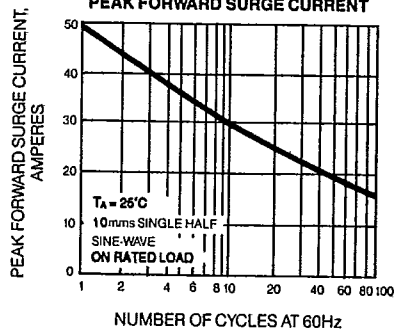


FIG. 3 — TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

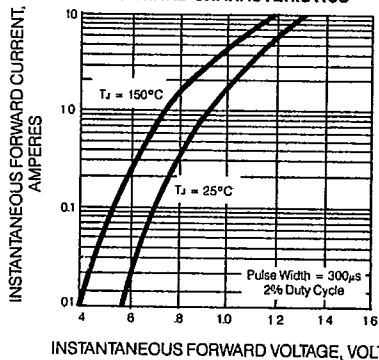


FIG. 4 — TYPICAL JUNCTION CAPACITANCE

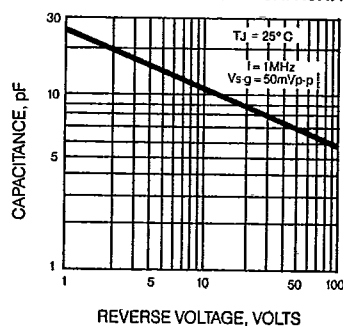


FIG. 5 — TYPICAL REVERSE CHARACTERISTICS

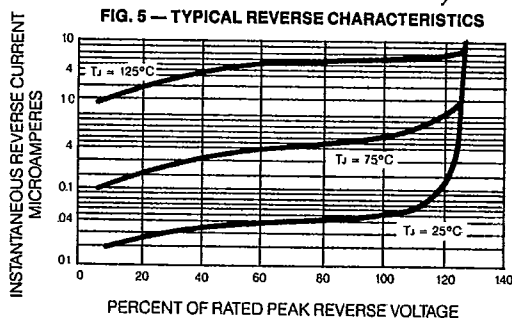
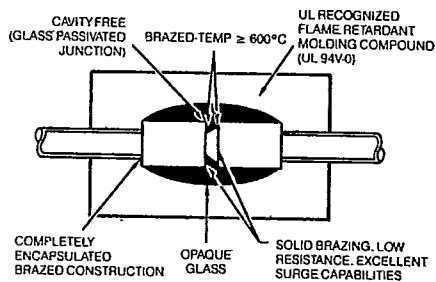


FIG. 6 — SUPERECTIFIER



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