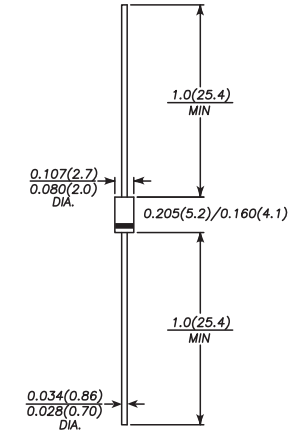
# BY133G

## GLASS PASSIVATED SILICON RECTIFIER

*Reverse Voltage - 1300 Volts  Forward Current -1.0 Ampere*

**DO-41**




*Dimensions in inches and (millimeters)*

## FEATURES

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Construction utilizes void-free molded plastic technique
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed:
  260℃/10 seconds,0.375"(9.5mm) lead length, 5 lbs. (2.3kg) tension
- Glass passivated chip junction

## MECHANICAL DATA

**Case**: JEDEC DO-41 molded plastic body
**Terminals**: Plated axial leads, solderable per MIL-STD-750, Method 2026
**Polarity**: Color band denotes cathode end
**Mounting Position**: Any
**Weight**:0.012 ounce, 0.33 grams

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.
Single phase half-wave 60Hz,resistive or inductive load,for capacitive load current derate by 20%.

| | *SYMBOLS* | **BY133G** | **UNITS** |
|---|---|---|---|
| Maximum repetitive peak reverse voltage | $V_{RRM}$ | 1300 | V |
| Maximum RMS voltage | $V_{RMS}$ | 910 | V |
| Maximum DC blocking voltage | $V_{DC}$ | 1300 | V |
| Maximum average forward rectified current 0.375"(9.5mm) lead length at $T_A$=75℃ | $I_{(AV)}$ | 1.0 | A |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) | $I_{FSM}$ | 30.0 | A |
| Maximum instantaneous forward voltage at 1.0A | $V_F$ | 1.1 | V |
| Maximum DC reverse current $T_A$=25℃<br>at rated DC blocking voltage $T_A$=100℃ | $I_R$ | 5.0<br>50.0 | μA |
| Typical junction capacitance (NOTE 1) | $C_J$ | 15.0 | pF |
| Typical thermal resistance (NOTE 2) | $R_{\theta JA}$ | 50.0 | °C/W |
| Operating junction and storage temperature range | $T_J$,$T_{STG}$ | -55 to +150 | °C |

**Note:**1.Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2.Thermal resistance from junction to ambient at 0.375"(9.5mm)lead length,P.C.B. mounted



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# RATINGS AND CHARACTERISTIC CURVES BY133G

FIG. 1- FORWARD CURRENT DERATING CURVE

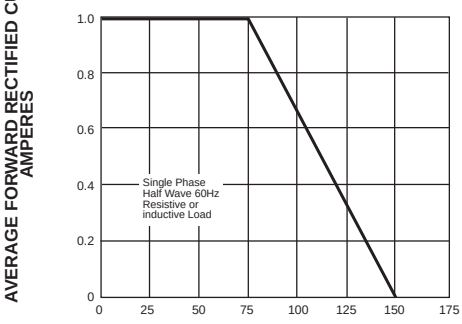



FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

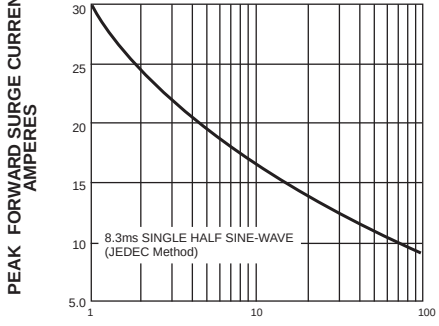



FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

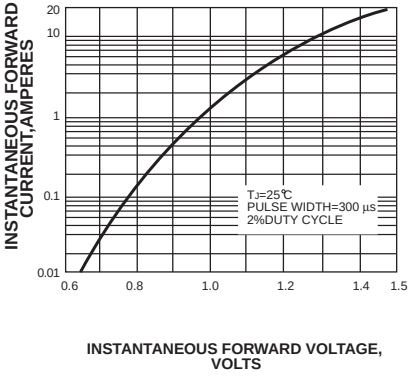



FIG. 4-TYPICAL REVERSE CHARACTERISTICS

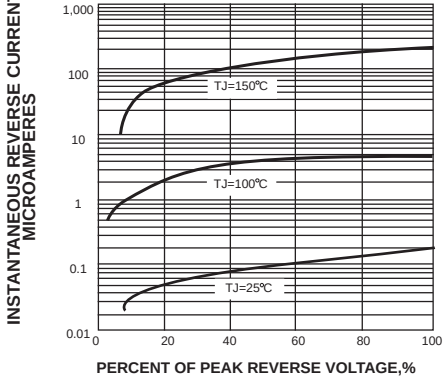



FIG. 5-TYPICAL JUNCTION CAPACITANCE

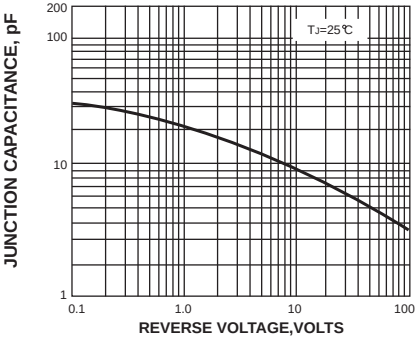
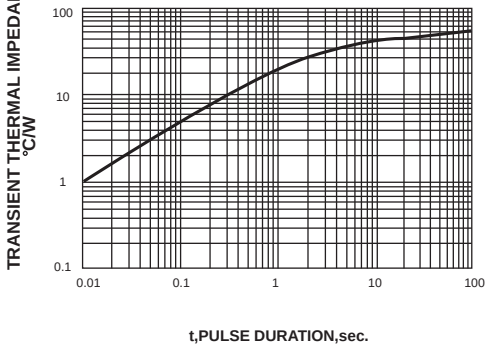



FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE



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