

**HIGH VOLTAGE PLASTIC RECTIFIERS**

REVERSE VOLTAGE - **1300Volts**  
 FORWARD CURRENT - **1.0 Amperes**

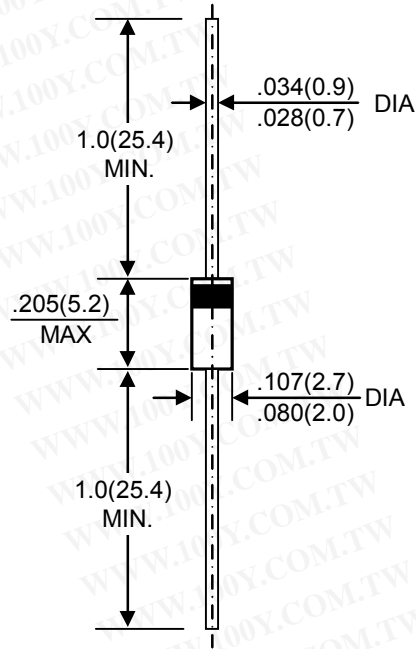
**FEATURES**

- Low cost
- Diffused junction
- Ultra fast switching for high efficiency
- Low reverse leakage current
- Low forward voltage drop
- High current capability
- The plastic material carries UL recognition 94V-0

**MECHANICAL DATA**

- Case: JEDEC DO-41 molded plastic
- Polarity: Color band denotes cathode
- Weight : 0.012 ounces, 0.34 grams
- Mounting position: Any

**DO-41**



Dimensions in inches and (millimeters)

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz resistive or inductive load.

For capacitive load, derate current by 20%

| CHARACTERISTICS  | SYMBOL            | BY133      | UNIT |
|--|-------------------|------------|------|
| Maximum Non-Recurrent Peak Reverse Voltage   | V <sub>RSM</sub>  | 1300       | V    |
| Maximum Recurrent Peak Reverse Voltage   | V <sub>RRM</sub>  | 1300       | V    |
| Maximum RMS Voltage  | V <sub>RMS</sub>  | 910        | V    |
| Maximum DC Blocking Voltage at T <sub>A</sub> =150°C   | V <sub>DC</sub>   | 1300       | V    |
| Maximum Average Forward Rectified Current<br>375" (9.5mm) Lead Lengths at @T <sub>A</sub> =75°C                | I <sub>(AV)</sub> | 1.0        | A    |
| Peak Forward Surge Current<br>10ms Single Half Sine-Wave<br>Super Imposed on Rated Load @ T <sub>A</sub> =25°C | I <sub>FSM</sub>  | 30         | A    |
| Maximum Instantaneous Forward Voltage at 1.0A @ T <sub>A</sub> =25°C   | V <sub>F</sub>    | 1.1        | V    |
| Maximum DC Reverse Current @T <sub>A</sub> =25°C<br>at Rated DC Blocking Voltage @T <sub>A</sub> =150°C        | I <sub>R</sub>    | 5.0<br>500 | μA   |
| Typical junction Capacitance (Note1)   | C <sub>J</sub>    | 15.0       | pF   |
| Typical Thermal Resistance (Note 2)  | R <sub>θJA</sub>  | 25.0       | °C/W |
| Operating Temperature Range  | T <sub>J</sub>    | -55 to+150 | °C   |
| Storage Temperature Range  | T <sub>STG</sub>  | -55 to+150 | °C   |

NOTE:1. Measured at 1.0 MHz and applied reverse voltage of 4.0V DC.

2. Thermal Resistance from Junction of ambient at 375" (9.5mm) lead lengths. P.C. board mounted.

FIG. 1 - FORWARD CURRENT DERATING

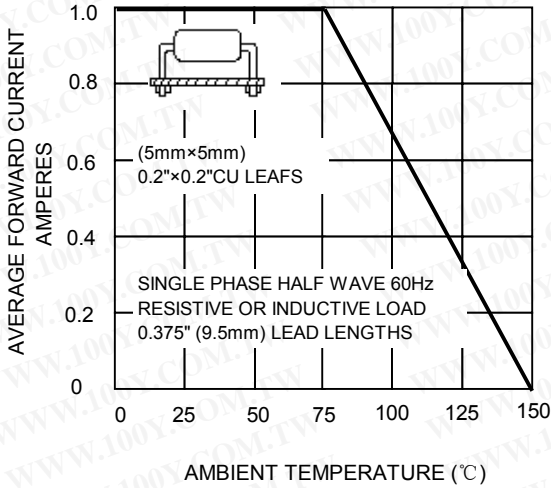


FIG. 2-TYPICAL FORWARD CHARACTERISTICS

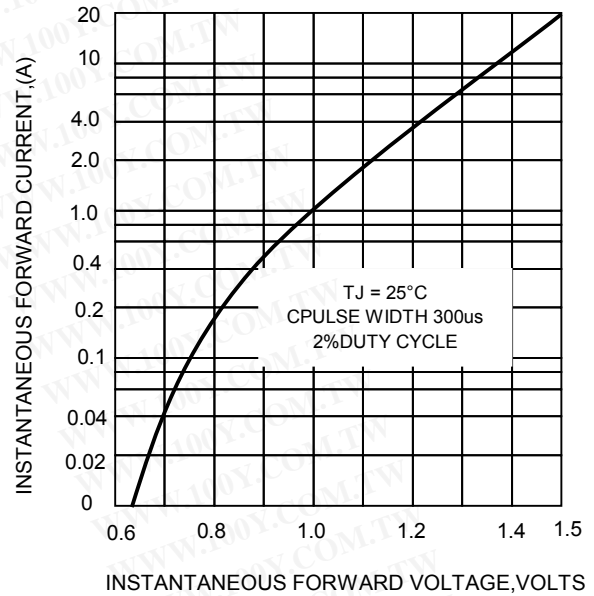


FIG. 3 - MAXIMUM NON-REPETITIVE SURGE CURRENT

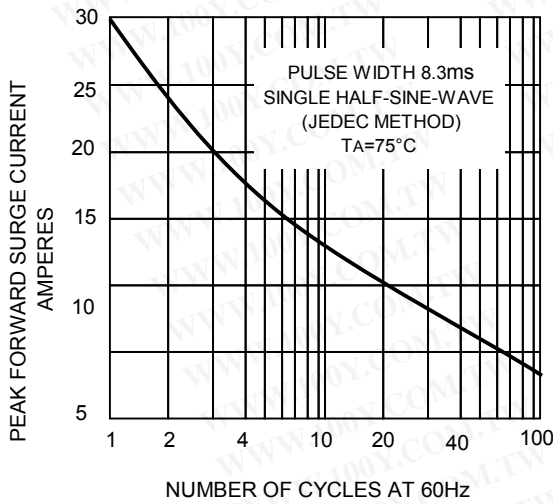


FIG. 4 - PEAK FORWARD SURGE CURRENT AMPERES

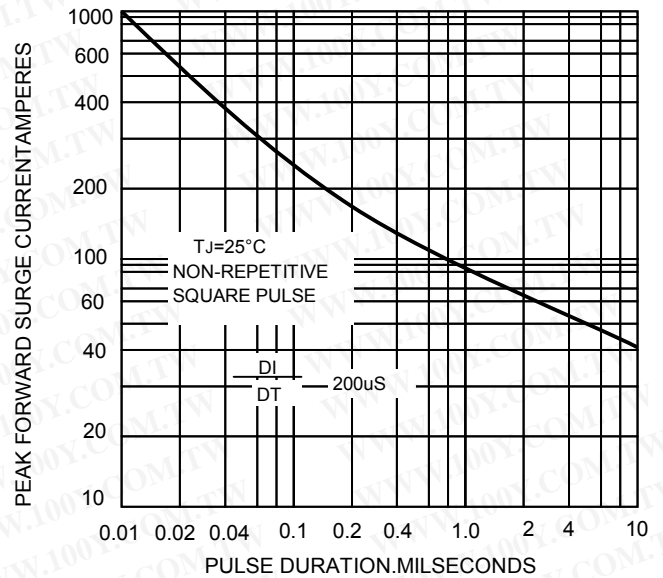


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

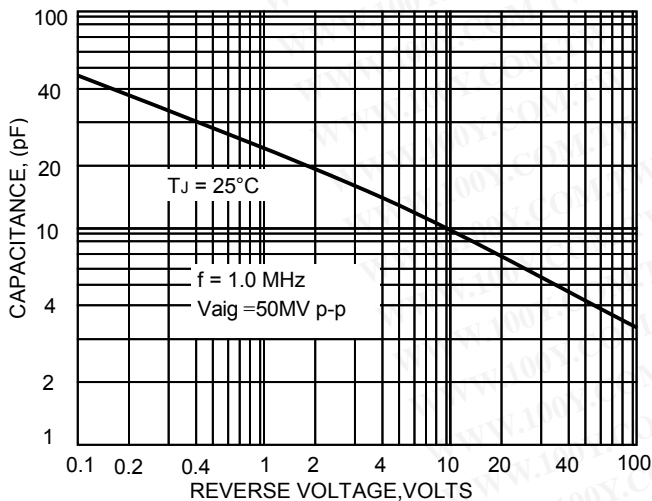


FIG. 6-TYPICAL REVERSE CHARACTERISTICS

