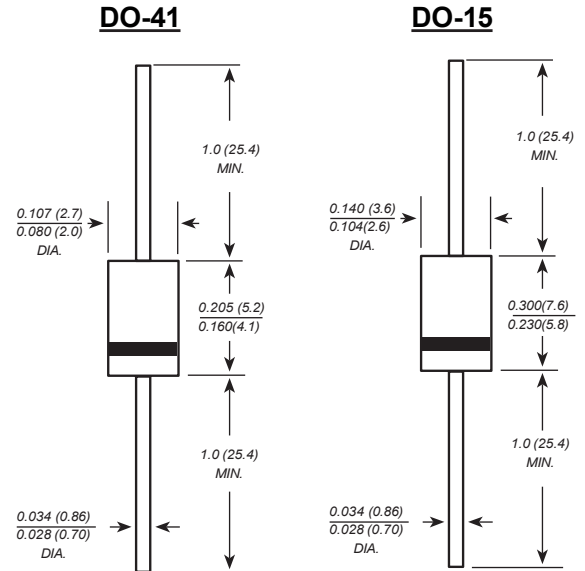


## HIGH VOLTAGE RECTIFIER

### 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:
- ◆ 250°C/10 seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension



Dimensions in inches and (millimeters)

0.014 ounce, 0.40 grams(DO-15)

### Maximum Ratings And Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

| Parameter                                                                                              | SYMBOLS         | R1200       | R1500 | MD R1800 | R2000 | UNITS         |
|--------------------------------------------------------------------------------------------------------|-----------------|-------------|-------|----------|-------|---------------|
| Marking Code                                                                                           |                 |             |       |          |       |               |
| Maximum repetitive peak reverse voltage                                                                | $V_{RRM}$       | 1200        | 1500  | 1800     | 2000  | V             |
| Maximum RMS voltage                                                                                    | $V_{RMS}$       | 840         | 1050  | 1260     | 1400  | V             |
| Maximum DC blocking voltage                                                                            | $V_{DC}$        | 1200        | 1500  | 1800     | 2000  | V             |
| Maximum average forward rectified current<br>0.375" (9.5mm) lead length (see fig.1)                    | $I_{(AV)}$      | 0.5         |       |          | 0.2   | A             |
| Peak forward surge current<br>8.3ms single half sine-wave superimposed<br>on rated load (JEDEC Method) | $I_{FSM}$       | 30.0        |       |          |       | A             |
| Maximum instantaneous forward voltage at 0.5/0.2A                                                      | $V_F$           | 2.0         |       |          | 3.0   | V             |
| Maximum DC reverse current<br>$T_A=25^{\circ}C$<br>at rated DC blocking voltage<br>$T_A=100^{\circ}C$  | $I_R$           | 5.0<br>50.0 |       |          |       | $\mu A$       |
| Typical junction capacitance (NOTE 1)                                                                  | $C_J$           | 15.0        |       |          |       | pF            |
| Typical thermal resistance (NOTE 2)                                                                    | $R_{\theta JA}$ | 50.0        |       |          |       | $^{\circ}C/W$ |
| Operating junction and storage temperature range                                                       | $T_J, T_{STG}$  | -65 to +175 |       |          |       | $^{\circ}C$   |

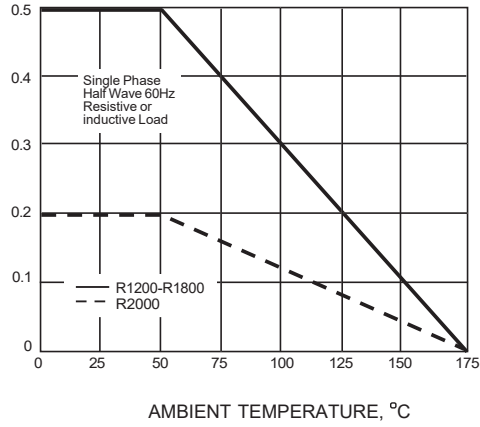
**Note:** 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

2. Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted

## Ratings And Characteristic Curves

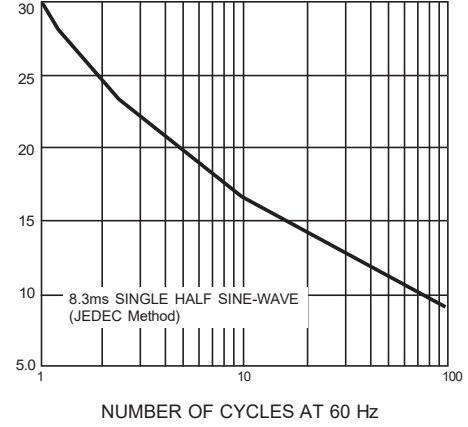
AVERAGE FORWARD RECTIFIED CURRENT,  
AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



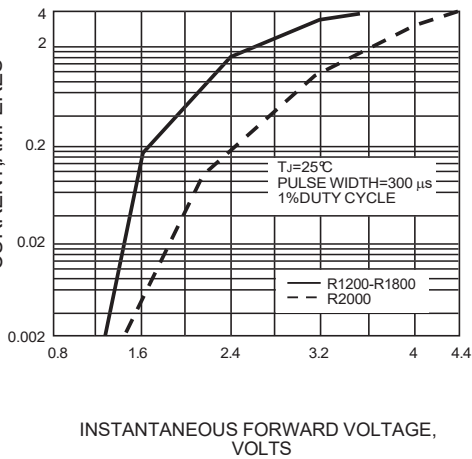
PEAK FORWARD SURGE CURRENT,  
AMPERES

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



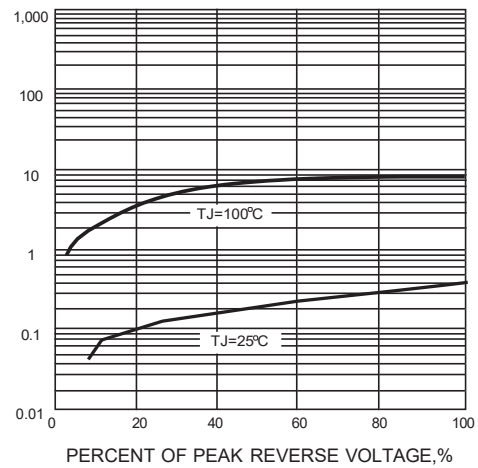
INSTANTANEOUS FORWARD  
CURRENT, AMPERES

FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



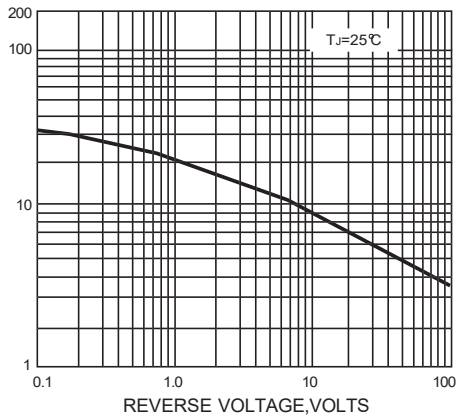
INSTANTANEOUS REVERSE CURRENT,  
MICROAMPERES

FIG. 4-TYPICAL REVERSE CHARACTERISTICS



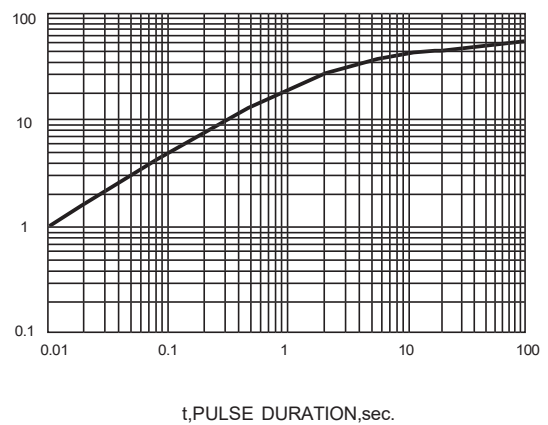
JUNCTION CAPACITANCE, pF

FIG. 5-TYPICAL JUNCTION CAPACITANCE



TRANSIENT THERMAL IMPEDANCE,  
°C/W

FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE



The curve above is for reference only.