

**FAST RECOVERY  
GLASS PASSIVATED RECTIFIERS**

REVERSE VOLTAGE - **50 to 1000** Volts  
FORWARD CURRENT - **1.5** Amperes

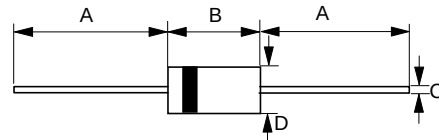
**FEATURES**

- Fast switching for high efficiency
- Glass passivated chip
- Low reverse leakage current
- Low forward voltage drop
- High current capability
- Plastic material has UL flammability classification 94V-0

**MECHANICAL DATA**

- Case : JEDEC DO-15 molded plastic
- Polarity : Color band denotes cathode
- Weight : 0.015 ounces, 0.4 grams
- Mounting position : Any

**DO-15**



| DO-15                        |        |        |
|------------------------------|--------|--------|
| Dim.                         | Min.   | Max.   |
| A                            | 25.4   | -      |
| B                            | 5.80   | 7.60   |
| C                            | 0.71 Ø | 0.86 Ø |
| D                            | 2.60 Ø | 3.60 Ø |
| All Dimensions in millimeter |        |        |

**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, derate current by 20%

| CHARACTERISTICS                                                                                      | SYMBOL           | PR 1501G    | PR 1502G | PR 1503G | PR 1504G | PR 1505G | PR 1506G | PR 1507G | UNIT |
|------------------------------------------------------------------------------------------------------|------------------|-------------|----------|----------|----------|----------|----------|----------|------|
| Maximum Recurrent Peak Reverse Voltage                                                               | V <sub>RRM</sub> | 50          | 100      | 200      | 400      | 600      | 800      | 1000     | V    |
| Maximum RMS Voltage                                                                                  | V <sub>RMS</sub> | 35          | 70       | 140      | 280      | 420      | 560      | 700      | V    |
| Maximum DC Blocking Voltage                                                                          | V <sub>DC</sub>  | 50          | 100      | 200      | 400      | 600      | 800      | 1000     | V    |
| Maximum Average Forward Rectified Current @T <sub>A</sub> =55°C                                      | I(AV)            | 1.5         |          |          |          |          |          |          | A    |
| Peak Forward Surge Current 8.3ms single half sine-wave super imposed on rated load                   | I <sub>FSM</sub> | 50          |          |          |          |          |          |          | A    |
| Maximum forward Voltage at 1.5A DC                                                                   | V <sub>F</sub>   | 1.3         |          |          |          |          |          |          | V    |
| Maximum DC Reverse Current at Rated DC Blocking Voltage @T <sub>J</sub> =25°C @T <sub>J</sub> =125°C | I <sub>R</sub>   | 5.0<br>100  |          |          |          |          |          |          | uA   |
| Maximum Reverse Recovery Time (Note 1)                                                               | T <sub>RR</sub>  | 150         |          |          |          | 250      | 500      |          | ns   |
| Typical Junction Capacitance (Note2)                                                                 | C <sub>J</sub>   | 25          |          |          |          |          |          |          | pF   |
| Typical Thermal Resistance (Note 3)                                                                  | R <sub>θJA</sub> | 30          |          |          |          |          |          |          | °C/W |
| Operating Temperature Range                                                                          | T <sub>J</sub>   | -55 to +150 |          |          |          |          |          |          | °C   |
| Storage Temperature Range                                                                            | T <sub>STG</sub> | -55 to +150 |          |          |          |          |          |          | °C   |

NOTES : 1.Reverse Recovery Test Conditons :I<sub>F</sub>=0.5A I<sub>R</sub>=1A. T<sub>RR</sub>=0.25A.  
2.Measured at 1.0MHz and applied reverse voltage of 4.0V DC.  
3.Thermal Resistance Junction to Ambient.

REV. 2, 01-Dec-2000, KDED01

FIG.1 - FORWARD CURRENT DERATING CURVE

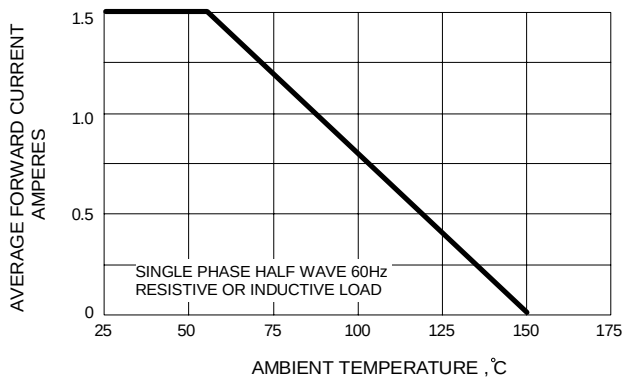


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

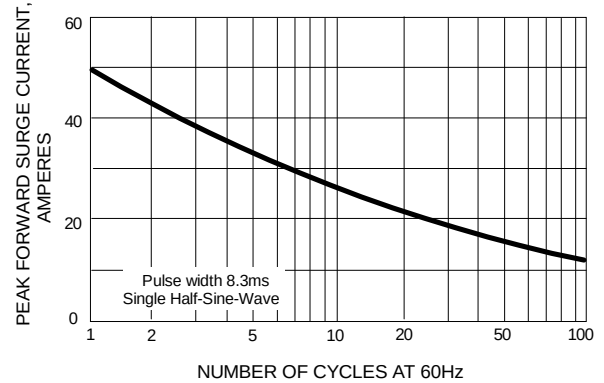


FIG.3 - TYPICAL JUNCTION CAPACITANCE

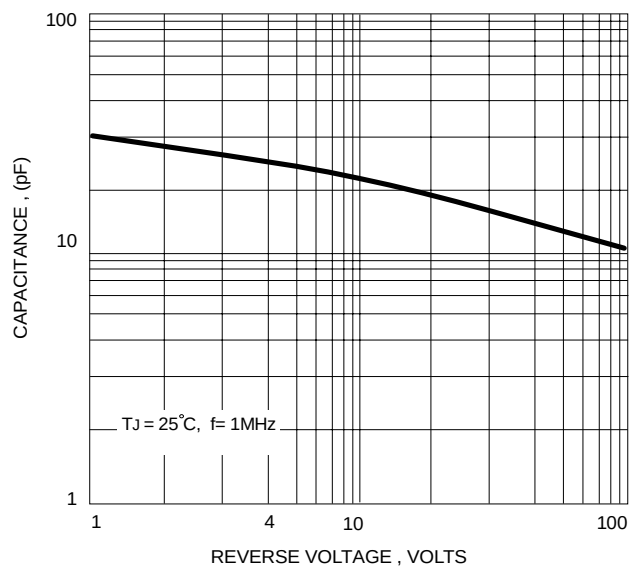


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

