



#### **GLASS PASSIVATED JUNCTION FAST SWITCHING RECTIFIERS**

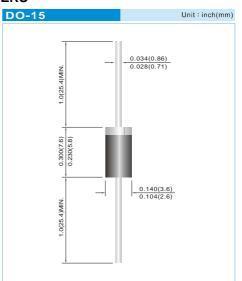
VOLTAGE 50 to 1000 Volt CURRENT 1.5 Ampere

#### **FEATURES**

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O utilizing Flame Retardant Epoxy Molding Compound.
- · Glass passivated junction
- Fast switching for high efficiency.
- Lead free in compliance with EU RoHS 2011/65/EU directive

#### **MECHANICAL DATA**

- Case: Molded plastic, DO-15
- Terminals: Axial leads, solderable to MIL-STD-750, Method 2026
- Polarity: Color Band denotes cathode end
- Weight: 0.014 ounce, 0.397 gram



#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Resistive or inductive load, 60Hz.

| PARAMETER  | SYMBOL                           | PG150R      | PG151R | PG152R | PG154R | PG156R | PG158R | PG1510R | UNITS |
|--|----------------------------------|-------------|--------|--------|--------|--------|--------|---------|-------|
| 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 Current 0.375"(9.5mm) lead length                                    | I <sub>F(AV)</sub>               | 1.5         |        |        |        |        |        | Α       |       |
| Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load          | I <sub>FSM</sub>                 | 50          |        |        |        |        | Α      |         |       |
| Maximum Forward Voltage at 1.5A  | V <sub>F</sub>                   | 1.3         |        |        |        |        | V      |         |       |
| Maximum DC Reverse Current at Rated DC Blocking $T_{\rm J}$ =25°C Voltage $T_{\rm J}$ =100°C | I <sub>R</sub>                   | 1<br>150    |        |        |        |        |        | μА      |       |
| Maximum Reverse Recovery Time (Note 1)   | t <sub>rr</sub>                  | 150 250 500 |        |        | 00     | ns     |        |         |       |
| Typical Junction Capacitance (Note 2)  | C <sub>J</sub>                   | 35          |        |        |        |        | pF     |         |       |
| Typical Thermal Resistance (Note 3)  | R <sub>eJA</sub>                 | 45          |        |        |        |        | °C / W |         |       |
| Operating Junction and Storage Temperature Range   | T <sub>J</sub> ,T <sub>STG</sub> | -55 to +150 |        |        |        |        | °C     |         |       |

NOTES:1. Reverse Recovery Test Conditions:  $I_F$ =0.5A,  $I_R$ =1A,  $I_{rr}$ =0.25A

- 2. Measured at 1 MHz and applied reverse voltage of 4 VDC
- 3. Thermal resistance from junction to ambient and from junction to lead length 0.375" (9.5mm) P.C.B. mounted





#### **RATING AND CHARACTERISTIC CURVES**

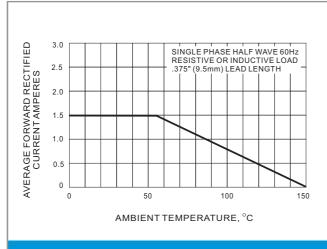


FIG.1 FORWARD CURRENT DERATING CURVE

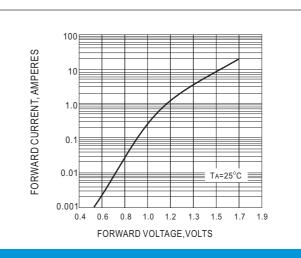


FIG.2 TYPICAL FORWARD CHARACTERISTICS

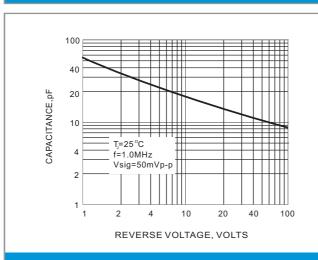


FIG.3 TYPICAL JUNCTION CAPACITANCE

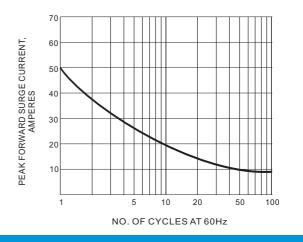
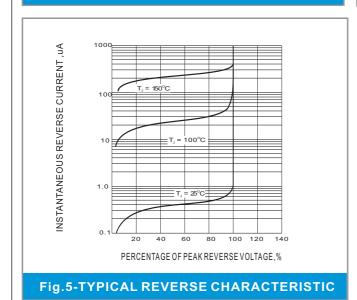


FIG.4 MAX NON-REPETITIVE SURGE CURRENT







### Part No\_packing code\_Version

PG150R\_AY\_00001

PG150R\_AY\_10001

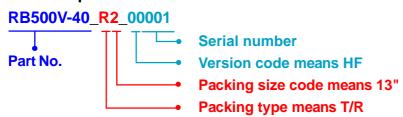
PG150R\_B0\_00001

PG150R\_B0\_10001

PG150R\_R2\_00001

PG150R\_R2\_10001

### For example:



| Packing Code XX                      |                      |                                   |                      |            | Version Code XXXXX   |                                       |  |  |
|--------------------------------------|----------------------|-----------------------------------|----------------------|------------|----------------------|---------------------------------------|--|--|
| Packing type                         | 1 <sup>st</sup> Code | Packing size code                 | 2 <sup>nd</sup> Code | HF or RoHS | 1 <sup>st</sup> Code | 2 <sup>nd</sup> ~5 <sup>th</sup> Code |  |  |
| Tape and Ammunition Box (T/B)        | Α                    | N/A                               | 0                    | HF         | 0                    | serial number                         |  |  |
| Tape and Reel<br>(T/R)               | R                    | 7"                                | 1                    | RoHS       | 1                    | serial number                         |  |  |
| Bulk Packing<br>(B/P)                | В                    | 13"                               | 2                    |            |                      |                                       |  |  |
| Tube Packing<br>(T/P)                | Т                    | 26mm                              | X                    |            |                      |                                       |  |  |
| Tape and Reel (Right Oriented) (TRR) | s                    | 52mm                              | Y                    |            |                      |                                       |  |  |
| Tape and Reel (Left Oriented) (TRL)  | L                    | PANASERT T/B CATHODE UP<br>(PBCU) | U                    |            |                      |                                       |  |  |
| FORMING                              | F                    | PANASERT T/B CATHODE DOWN (PBCD)  | D                    |            |                      |                                       |  |  |





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