

HER151~HER158

HIGH EFFICIENT RECOVERY RECTIFIER

VOLTAGE 50 to 1000 Volt **CURRENT** 1.5 Ampere

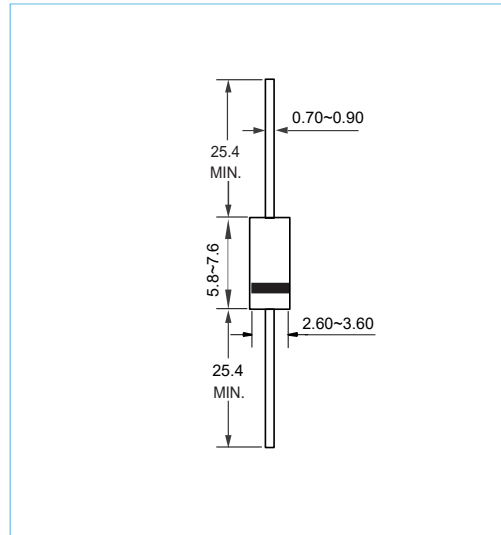
DO-15 Unit:mm

FEATURES

- Low Forward Voltage Drop
- High current capability
- High reliability
- Lead free in compliance with EU RoHS

MECHANICAL DATA

- Case Material: Molded Plastic.
- UL Flammability Classification Rating 94V-0



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

| PARAMETER | SYMBOL | HER151 | HER152 | HER153 | HER154 | HER155 | HER156 | HER157 | HER158 | UNITS | | |
|---|-----------------|-------------|--------|--------|--------|--------|--------|--------|--------|-----------------|----|---------|
| Maximum Recurrent Peak Reverse Voltage | V_{RRM} | 50 | 100 | 200 | 300 | 400 | 600 | 800 | 1000 | V | | |
| Maximum RMS Voltage | V_{RMS} | 35 | 70 | 140 | 210 | 280 | 420 | 560 | 700 | V | | |
| Maximum DC Blocking Voltage | V_{DC} | 50 | 100 | 200 | 300 | 400 | 600 | 800 | 1000 | V | | |
| Maximum Average Forward Current (see FIG.1) | $I_{F(AV)}$ | 1.5 | | | | | | | | A | | |
| Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load | I_{FSM} | 50 | | | | | | | | A | | |
| Maximum Forward Voltage at 1.5 A | V_F | 1.0 | | | 1.30 | | 1.70 | | | V | | |
| Maximum DC Reverse Current at Rated DC Blocking Voltage | I_R | | | | | 5.0 | | 100 | | | | μA |
| Maximum Reverse Recovery Time(Note 1) | t_{rr} | 50 | | | | 75 | | | | | ns | |
| Typical Junction Capacitance (Note2) | C_J | 35 | | | | 20 | | | | | pF | |
| Thermal Resistance | $R_{\theta JA}$ | 60 | | | | | | | | $^{\circ}C / W$ | | |
| Operating Junction Temperature Range | T_J | -55 to +125 | | | | | | | | $^{\circ}C$ | | |
| Storage Temperature Range | T_{STG} | -55 to +150 | | | | | | | | $^{\circ}C$ | | |

NOTES:

1. Reverse Recovery Test Conditions: $I_F=0.5A, I_R=1.0A, I_{rr}=0.25A$
2. Measured at 1.0MHz and applied reverse voltage of 4.0 volt

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RATING AND CHARACTERISTIC CURVES

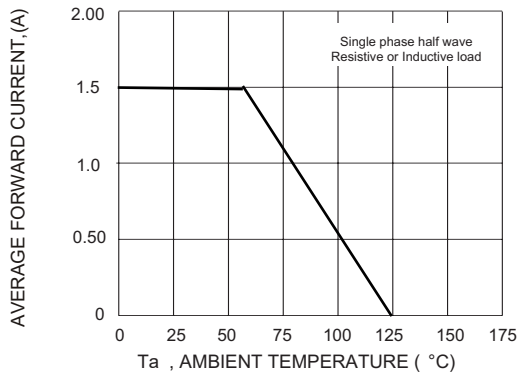


Fig. 1 Forward Current Derating Curve

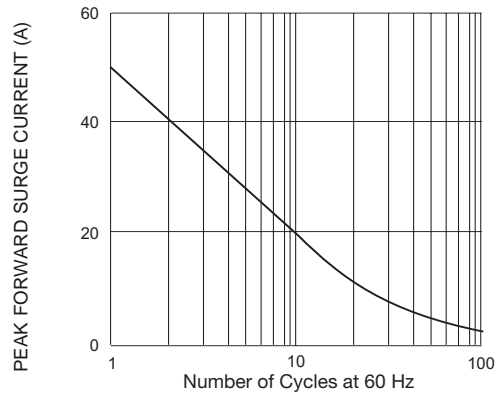


Fig. 2 Surge Current Derating Curve

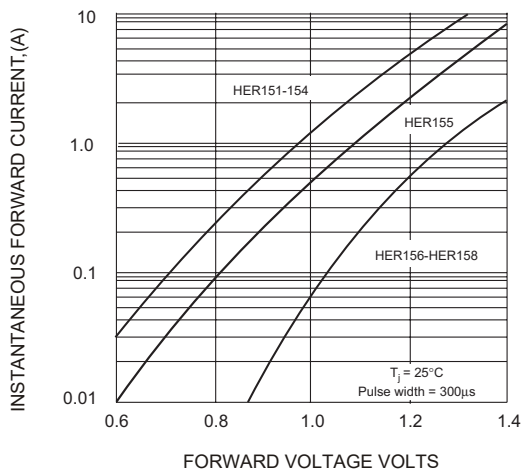


Fig. 3 Typical Forward Characteristics

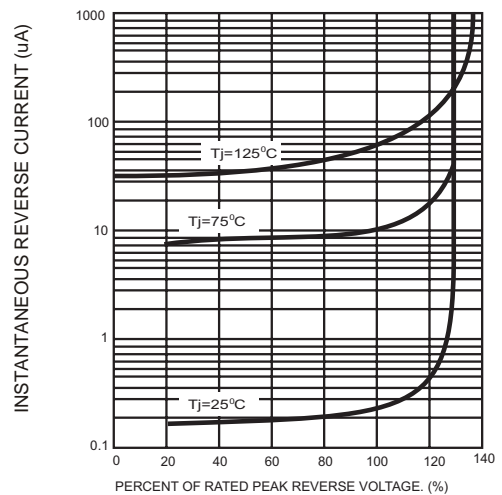


Fig. 4 Typical Reverse Characteristics

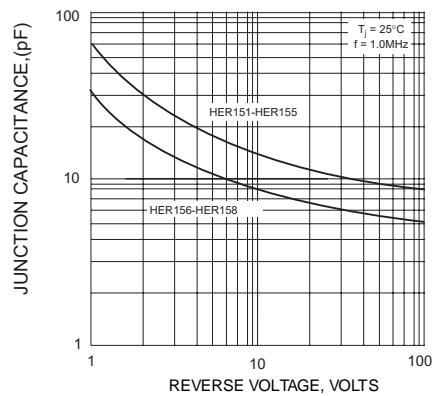
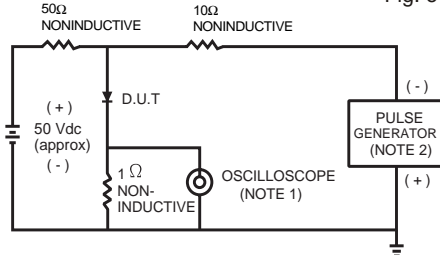


Fig. 5 Typical Junction Capacitance



- NOTES:
 3. Rise time = 7.0 ns max; Input impedance = 1.0 megaohm 22 pf.
 4. Rise time = 10 ns max; Source impedance = 50 ohms.

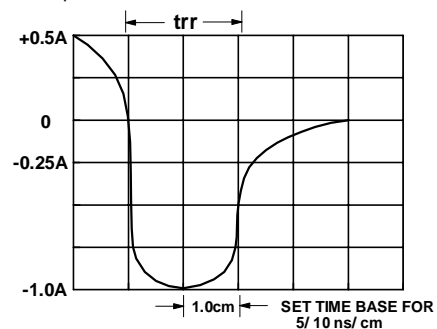


Fig. 6 Reverse Recovery Time Characteristic and Test Circuit

HER151~HER158

ORDER INFORMATION

- Packing information

| Part Number | Case | Reel Size | QUANTITY |
|---------------|-------|-----------|----------|
| HER151~HER158 | DO-15 | 13 Inch | 4000 |