

HER151 THRU HER158

HIGH EFFICIENCY RECTIFIERS

REVERSE VOLTAGE 50 to 1000 Volts FORWARD CURRENT 2.0 Ampere

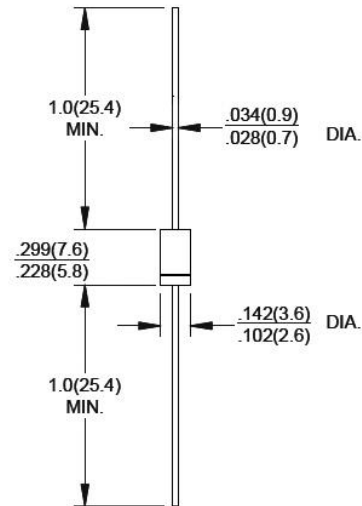
FEATURES

- ◆ High speed switching
 - ◆ Low forward voltage drop
 - ◆ Low leakage current
 - ◆ High forward surge capability
 - ◆ High reliability
 - ◆ High temperature soldering guaranteed
- 260°C/10 seconds, 0.375" (9.5mm) lead length at 5 lbs(2.3kg) tension

Mechanical Data

- ◆ Case: Transfer molded plastic
- ◆ Epoxy: UL94V-0 rate flame retardant
- ◆ Polarity: Color band denotes cathode end
- ◆ Lead: Plated axial lead, solderable per MIL-STD-202E method 208C
- ◆ Mounting position: Any

DO-15



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%

| PARAMETER | SYMBOL | HER 151 | HER 152 | HER 153 | HER 154 | HER 155 | HER 156 | HER 157 | HER 158 | UNIT |
|--|-----------------------------------|-------------|---------|---------|---------|---------|---------|---------|---------|-------|
| Maximum Repetitive Peak Reverse Voltage | V _{RRM} | 50 | 100 | 200 | 300 | 400 | 600 | 800 | 1000 | VOLTS |
| Maximum RMS Voltage | V _{RMS} | 35 | 70 | 140 | 210 | 280 | 420 | 560 | 700 | VOLTS |
| Maximum DC Blocking Voltage | V _{DC} | 50 | 100 | 200 | 300 | 400 | 600 | 800 | 1000 | VOLTS |
| Maximum average forward rectified current at T _A =55°C | I _(AV) | 2.0 | | | | | | | | Amp |
| Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) | I _{FSM} | 50 | | | | | | | | Amps |
| Maximum instantaneous forward voltage at 2.0A | V _F | 1.0 | | 1.3 | | 1.70 | | | VOLTS | |
| Maximum DC Reverse Current at Rated DC Blocking Voltage | T _A = 25°C | 5.0 | | | | | | | | uA |
| | T _A = 100°C | 100 | | | | | | | | |
| Maximum reverse recovery time (NOTE 1) | T _{RR} | 50 | | | | 75 | | | nS | |
| Typical Junction Capacitance (Note 2) | C _J | 30 | | | | 20 | | | pF | |
| Typical Thermal Resistance (Note 3) | R _{θJA} | 50 | | | | | | | | °C/W |
| Operating and storage temperature range | T _J , T _{STG} | -55 to +150 | | | | | | | | °C |

Note: 1. Reverse recovery condition I_f=0.5A, I_r=1.0A, I_{rr}=0.25A.

2. Measured at 1 MHz and applied reverse voltage of 4.0 VDC.

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

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RATING AND CHARACTERISTIC CURVES HER151 THRU HER158

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

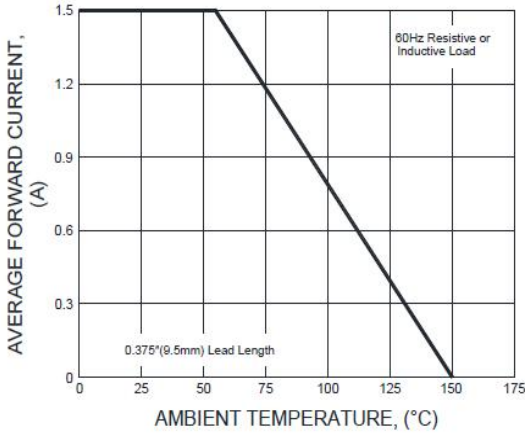


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

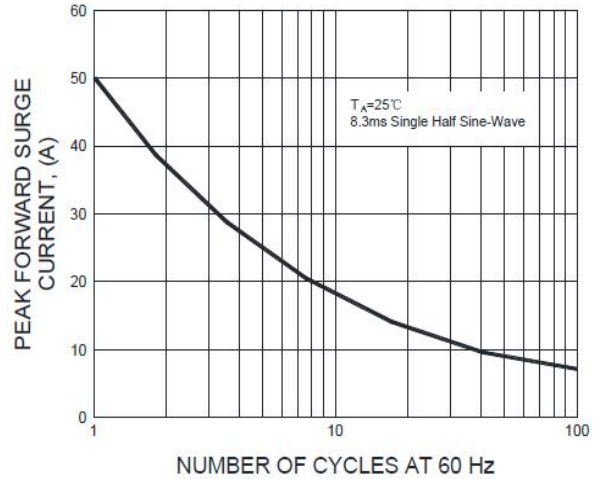


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

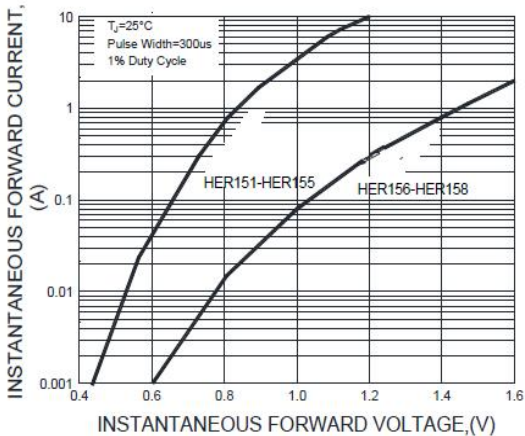


FIG.3-TYPICAL REVERSE CHARACTERISTICS

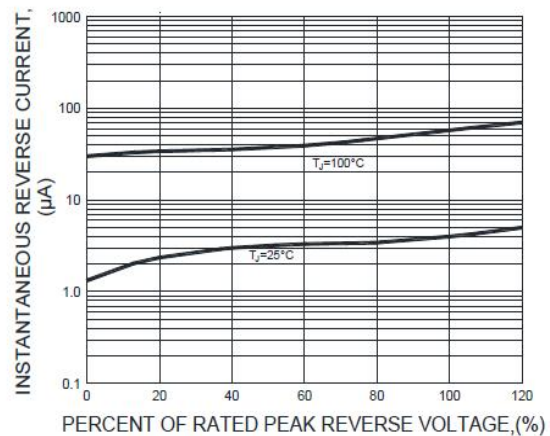


FIG.5-TYPICAL JUNCTION CAPACITANCE

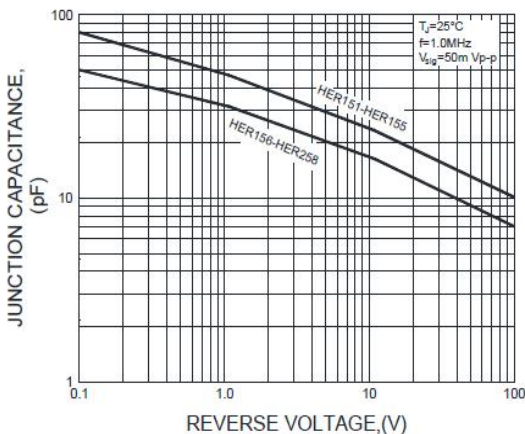
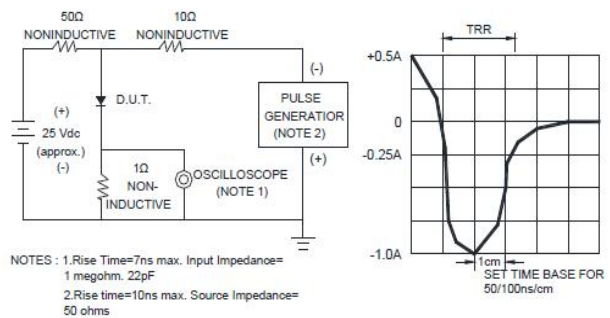


FIG.6-TEST CIRCUIT DIAGRAM AND FORWARD SURGE CURRENT



Note: Specifications are subject to change without notice. For more detail and update, please visit our website.