

HER101G-HER108G

HIGH EFFICIENCY RECTIFIERS

FEATURES

- Available as "HR" (high reliability) screened per MIL-PRF-19500, JANTX level. Add "HR" suffix to base part number.
- Available as non-RoHS (Sn/Pb plating), standard, and as RoHS by adding "-PBF" suffix.

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise noted)

| Characteristics | Symbol | HER | | | | | | | | Units |
|--|--------------------------------------|-------------|------|------|------|------|------|------|------|-------|
| | | 101G | 102G | 103G | 104G | 105G | 106G | 107G | 108G | |
| Maximum Forward Rectified Current | I _O | 1.0 | | | | | | | | A |
| Maximum Forward Surge Current | I _{FSM} | 30 | | | | | | | | A |
| Maximum Reverse Current V _R = V _{RRM} , T _J = 25°C V _R = V _{RRM} , T _J = 125°C | I _R | 5.0 150 | | | | | | | | μA |
| Typical Thermal Resistance ⁽¹⁾ Junction to Ambient Junction to Lead | R _{θJA} R _{θJL} | 60 15 | | | | | | | | °C/W |
| Typical Junction Capacitance f = 1MHz and applied 4V DC Reverse Voltage | C _J | 20 | | | | | | | | pF |
| Storage Temperature Range | T _{STG} | -65 to +175 | | | | | | | | °C |
| Operating Temperature Range | T _J | -55 to +150 | | | | | | | | °C |
| Repetitive Peak Reverse Voltage | V _{RRM} | 50 | 100 | 200 | 300 | 400 | 600 | 800 | 1000 | V |
| RMS Voltage | V _{RMS} | 35 | 70 | 140 | 210 | 280 | 420 | 560 | 700 | V |
| Continuous Reverse Voltage | V _R | 50 | 100 | 200 | 300 | 400 | 600 | 800 | 1000 | V |
| Maximum Forward Voltage @ I _F = 1.0A | V _F | 1.0 | 1.0 | 1.0 | 1.3 | 1.3 | 1.85 | 1.85 | 1.85 | V |
| Maximum Reverse Recovery Time ⁽¹⁾ | t _{rr} | 50 | 50 | 50 | 50 | 50 | 75 | 75 | 75 | ns |

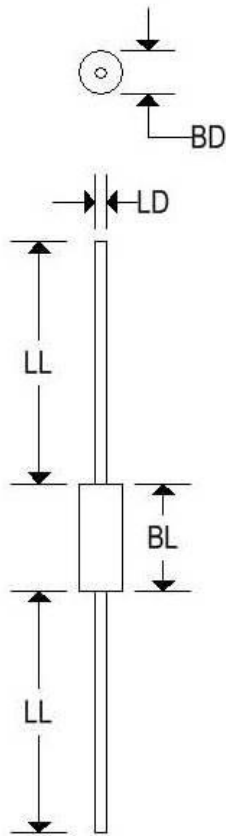
Note 1: Reverse recovery time test condition, I_F = 0.5A, I_R = 1.0A, I_{RR} = 0.25A

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MECHANICAL CHARACTERISTICS

| | |
|------------------|---------------|
| Case: | DO-41 |
| Marking: | Alpha-numeric |
| Polarity: | Cathode band |



| | DO-41 | | | |
|----|--------|-------|-------------|-------|
| | Inches | | Millimeters | |
| | Min | Max | Min | Max |
| BD | - | 0.107 | - | 2.720 |
| BL | - | 0.205 | - | 5.207 |
| LD | 0.028 | 0.034 | 0.711 | 0.864 |
| LL | 1.000 | - | 25.400 | - |

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FIG.1-TYPICAL FORWARD CHARACTERISTICS

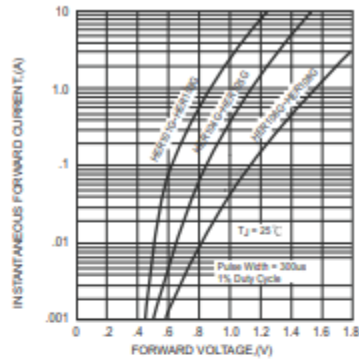


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

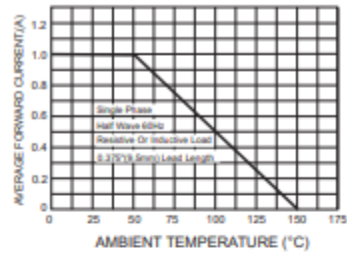
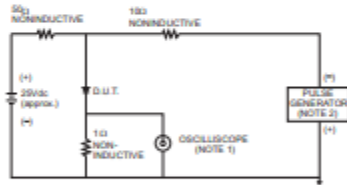


FIG.3- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



NOTES: 1. Rise Time = 7ns max., Input Impedance = 1 megohm, 22pF.
2. Rise Time = 10ns max., Source Impedance = 50 ohms.

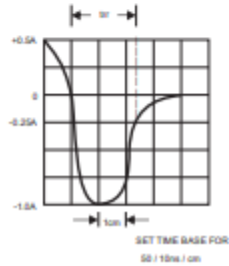


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

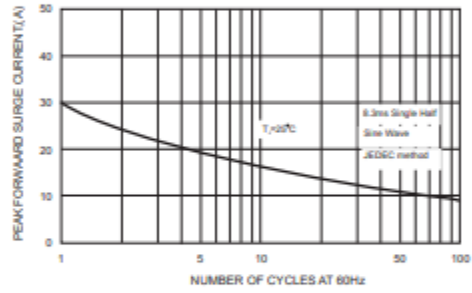


FIG.5-TYPICAL JUNCTION CAPACITANCE

