



FUKUCOM COMPANY LTD.

福 靈 有 限 公 司

FLAT P, 3/F, EVEREST INDUSTRIAL CENTRE, 396 KWUN TONG ROAD,
KWUN TONG, KOWLOON, HONG KONG.
TEL: 2790-0314 FAX: 2790-0206



HIGH EFFICIENCY RECTIFIER

HER201 THRU HER207

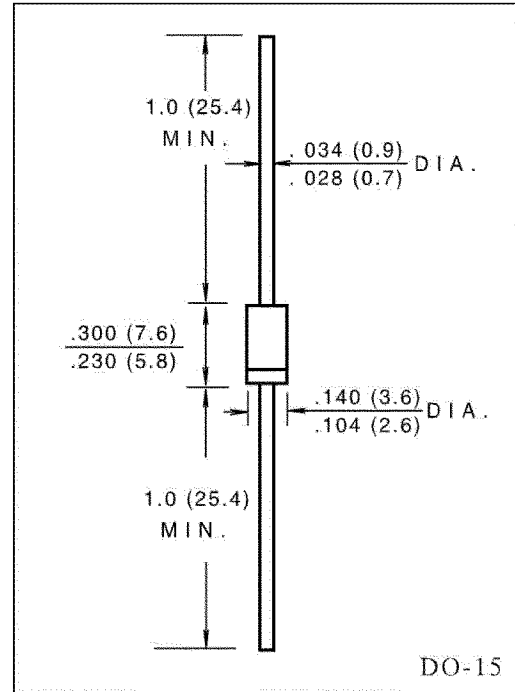
VOLTAGE RANGE 50 to 800 Volts
CURRENT 2.0 Ampere

FEATURES

- Low power loss, high efficiency.
- Low leakage
- High speed switching.
- High current capability.
- High surge capability
- 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
- Weight: 0.014 ounce, 0.39gram



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%

| | SYMBOLS | HER 201 | HER 202 | HER 203 | HER 204 | HER 205 | HER 206 | HER 207 | UNIT |
|--|-----------------|---------------|---------|---------|---------|---------|---------|---------|--------------|
| Maximum Repetitive Peak Reverse Voltage | V_{RRM} | 50 | 100 | 200 | 300 | 400 | 600 | 800 | Volts |
| Maximum RMS Voltage | V_{RMS} | 35 | 70 | 140 | 210 | 280 | 420 | 560 | Volts |
| Maximum DC Blocking Voltage | V_{DC} | 50 | 100 | 200 | 300 | 400 | 600 | 800 | Volts |
| Maximum Average Forward Rectified Current, 0.375" (9.5mm) Lead length at $T_A = 50^\circ C$ | $I_{(AV)}$ | 2.0 | | | | | | | Amps |
| Peak Forward Surge Current 8.3ms single half sine - wave superimposed on rated load (JEDEC method) | I_{FSM} | 60 | | | | | | | Amps |
| Maximum Instantaneous Forward Voltage Drop at 2.0 A | V_F | 1.0 | | 1.3 | | 1.5 | 17 | | Volts |
| Maximum DC Reverse Current at rated DC blocking voltage $T_A = 25^\circ C$ | I_R | 5.0 | | | | | | | μA |
| Maximum Full Load Reverse Current, full cycle average 0.375" (9.5mm) lead length at $T_L = 55^\circ C$ | $I_{R(AV)}$ | 100 | | | | | | | μA |
| Maximum Reverse Recovery Time (Note 1) | t_{rr} | 50 | | | | 70 | | | nS |
| Typical Junction Capacitance (Note 2) | C_J | 30 | | | | 20 | | | pF |
| Typical Thermal Resistance(Note 3) | $R_{\theta JA}$ | 40 | | | | | | | $^\circ C/W$ |
| Operating and Storage Temperature Range | T_J, T_{STG} | (-65 to +150) | | | | | | | $^\circ C$ |

NOTES:

1. Test condition: $I_F = 0.5A, I_R = 1.0A, I_{RR} = 0.25A$
2. Measured at 1 MHz and applied reverse of 4.0 volts.
3. Thermal resistance from junction to ambient with 0.375" (9.5mm) lead length, P.C.B. mounted.



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RATINGS AND CHARACTERISTIC CURVES HER201 THRU HER207

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

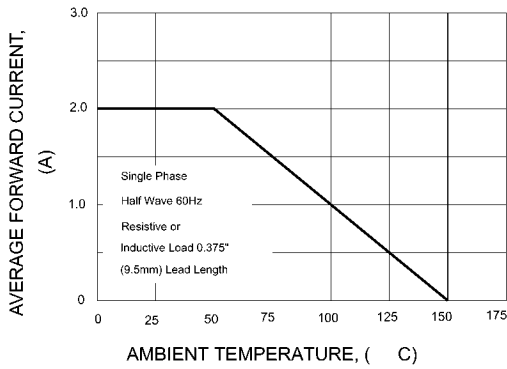


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

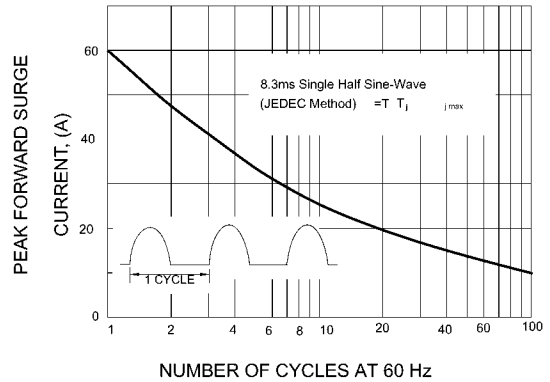


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

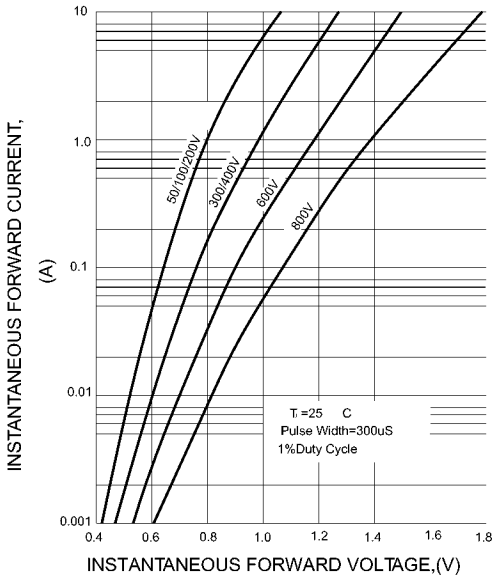


FIG.4-TYPICAL REVERSE CHARACTERISTICS

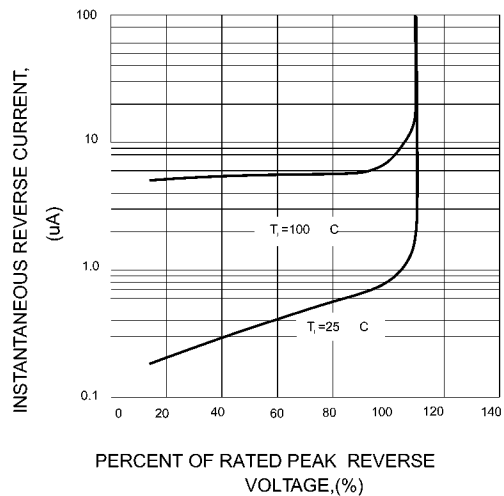


FIG.5-TYPICAL JUNCTION CAPACITANCE

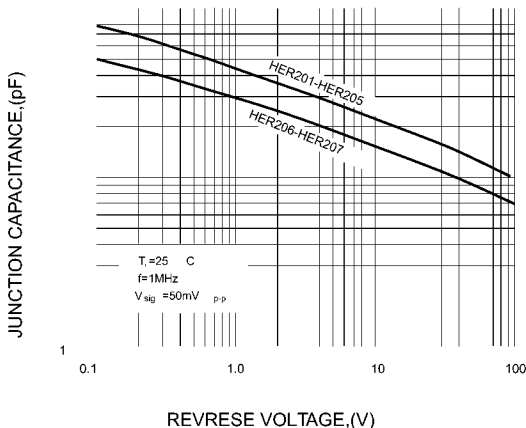


FIG.6-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

