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

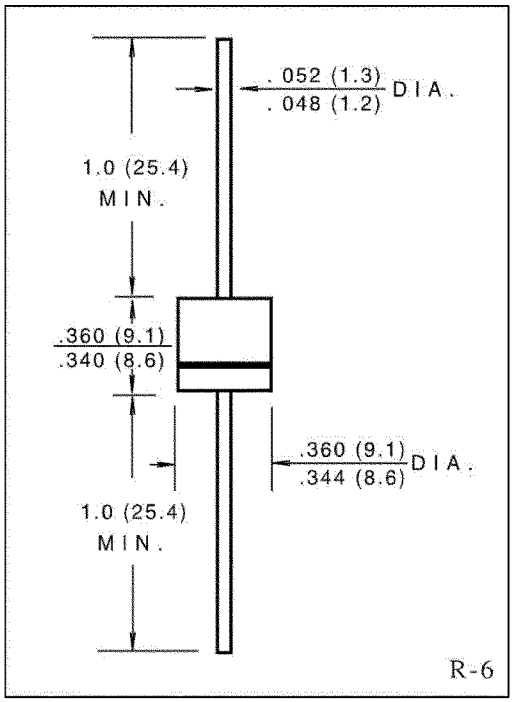
HIGH EFFICIENCY RECTIFIER

# HER601 THRU HER605

**VOLTAGE RANGE** 50 **to** 400 **Volts**
**CURRENT** 6.0 **Ampere**

## FEATURES

- Low power loss, high efficiency.
- Low leakage
- High speed switching.
- High current capability.
- High surge capability
- High temperature soldering guaranteed: 260℃/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: 0.07 ounce, 2.0gram

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

- Ratings at 25℃ ambient temperature unless otherwise specified
- Single phase, half wave, 60Hz, resistive or inductive load.
- For capacitive load derate current by 20%

| | SYMBOLS | HER 601 | HER 602 | HER 603 | HER 604 | HER 605 | UNIT |
|---|---|---|---|---|---|---|---|
| Maximum Repetitive Peak Reverse Voltage | $V_{RRM}$ | 50 | 100 | 200 | 300 | 400 | Volts |
| Maximum RMS Voltage | $V_{RMS}$ | 35 | 70 | 140 | 210 | 280 | Volts |
| Maximum DC Blocking Voltage | $V_{DC}$ | 50 | 100 | 200 | 300 | 400 | Volts |
| Maximum Average Forward Rectified Current, 0.375" (9.5mm) Lead length at $T_A$ = 50℃ | $I_{(AV)}$ | 6.0 | | | | | Amps |
| Peak Forward Surge Current 8.3ms single half sine - wave superimposed on rated load (JEDEC method ) | $I_{FSM}$ | 200 | | | | | Amps |
| Maximum Instantaneous Forward Voltage Drop at 6.0 A | $V_F$ | 1.0 | | | 1.3 | | Volts |
| Maximum DC Reverse Current at rated DC blocking voltage $T_A$ = 25℃ | $I_R$ | 10 | | | | | μA |
| Maximum Full Load Reverse Current, full cycle average 0.375" (9.5mm) lead length at $T_L$= 55℃ | $I_{R(AV)}$ | 150 | | | | | μA |
| Maximum Reverse Recovery Time (Note 1) | $t_{rr}$ | 70 | | | | | nS |
| Typical Junction Capacitance (Note 2) | $C_J$ | 110 | | | | | pF |
| Typical Thermal Resistance(Note 3) | $R_{\theta JA}$ | 10 | | | | | ℃/W |
| Operating and Storage Temperature Range | $T_J$, $T_{STG}$ | (-65 to +150) | | | | | ℃ |

**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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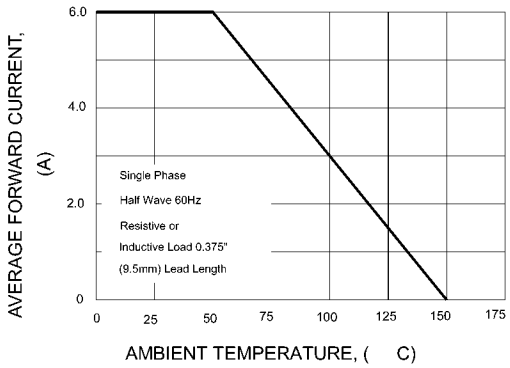
FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE



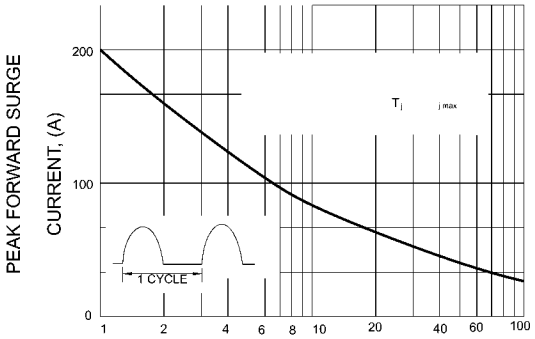
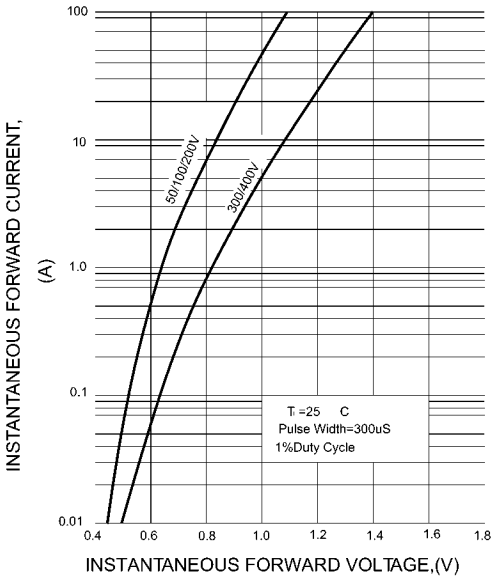




FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS




CHARACTERISTICS

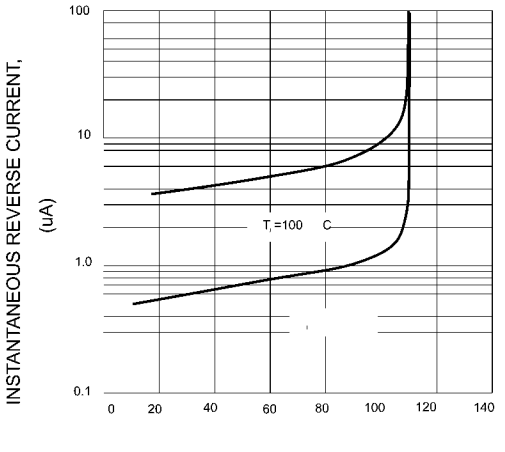
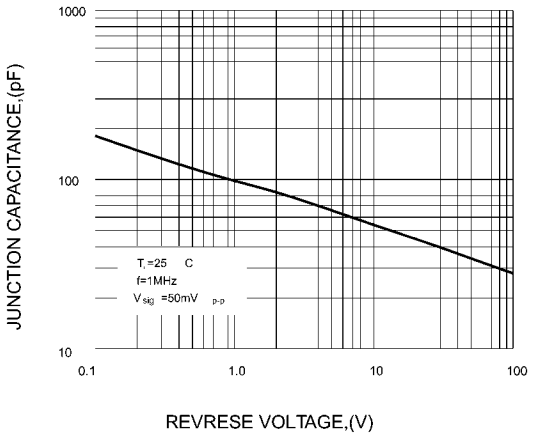
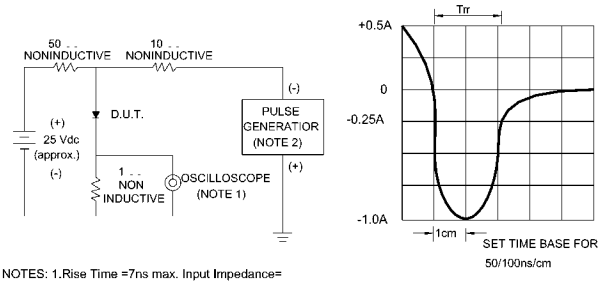



FIG.5-TYPICAL JUNCTION CAPACITANCE




REVERSE RECOVERY TIME CHARACTERISTIC




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