



## HIGH EFFICIENCY GLASS PASSIVATED RECTIFIER

**HER3001C THRU HER3008C**

**VOLTAGE RANGE  
CURRENT**

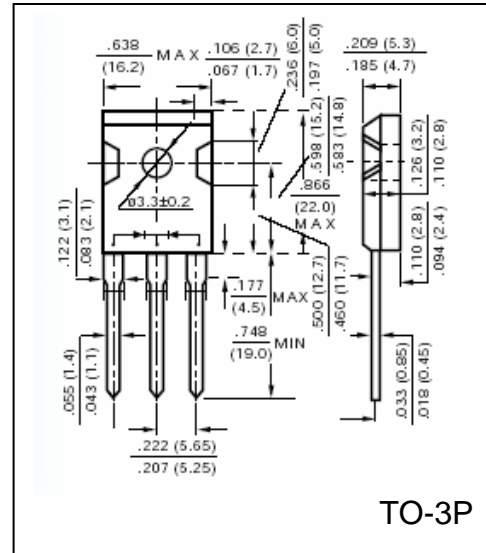
**50 to 1000 Volts  
30.0 Ampere**

### FEATURES

- Glass passivated chip junction
- Low power loss for high efficiency
- Low leakage
- High switching speed
- High surge capacity
- High temperature Soldering guaranteed:  
250 °C/10 seconds, 0.16" (4.06mm) lead length
- Also available with common Anode, add an "A" suffix,  
i.e. HER1601CA, and as a doubler, add a "D" suffix,  
i.e. HER1601CD

### MECHANICAL DATA

- Case: Transfer molded plastic
- Epoxy: UL94V-0 rate flame retardant
- Lead: Solderable per MIL-STD-202E  
Method 208C
- Polarity: as marked
- Mounting Position: Any, 10 in-lbs Torque Max
- Weight: 0.22 ounce, 6.3 gram



### 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 3001C	HER 3002C	HER 3003C	HER 3004C	HER 3005C	HER 3006C	HER 3007C	HER 3008C	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 $T_C = 100^\circ C$	$I_{(AV)}$	30								Amps
Peak Forward Surge Current 8.3mS single half sine wave superimposed on rated load (JEDEC method)	$I_{FSM}$	250								Amps
Maximum Instantaneous Forward Voltage per leg @ 15.0A	$V_F$	1.0		1.30		1.50	1.70		Volts	
Maximum DC Reverse Current at Rated DC Blocking Voltage per element	$I_R$			15.0						$\mu A$
Maximum Reverse Recovery Time Test conditions $I_F = 0.5A, I_R = 1.0A, I_{RR} = 0.25A$	$t_{rr}$	50				75				nS
Typical Junction Capacitance (Measured at 1.0MHz and applied reverse voltage of 4.0V)	$C_J$	40								pF
Typical Thermal Resistance (Note 1)	$R_{\theta JA}$	1.5								$^\circ C/W$
Operating Junction Temperature	$T_J$	(-55 to +150)								$^\circ C$
Storage Temperature Rang	$T_{STG}$	(-55 to +150)								$^\circ C$

### Notes:

1. Unit mounted on heatsink



# RATINGS AND CHARACTERISTIC CURVES SF3001C THRU SF3008C

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

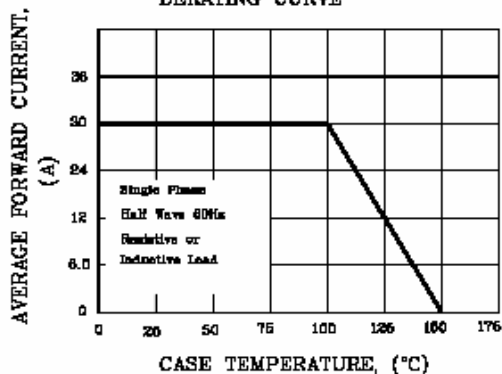


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

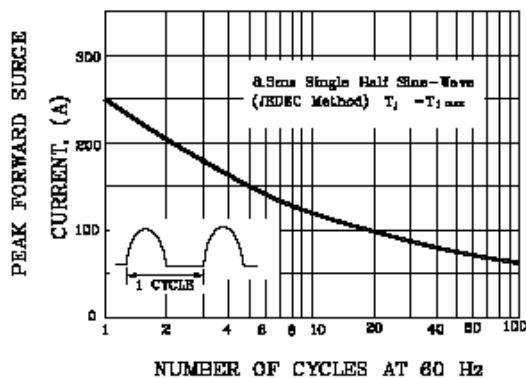


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG

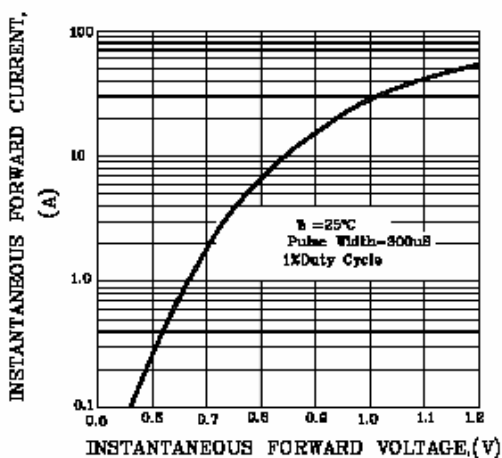


FIG.4-TYPICAL REVERSE CHARACTERISTICS PER LEG

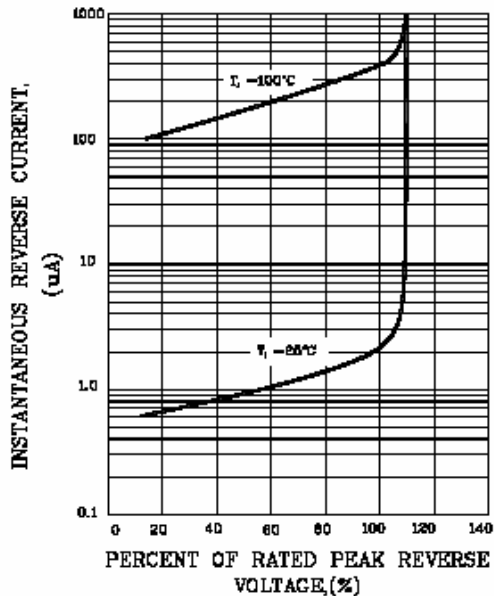


FIG.5-TYPICAL JUNCTION CAPACITANCE PER LEG

