

# HER101 THRU HER108

## HIGH EFFICIENCY RECOVERY RECTIFIERS

Reverse Voltage - 50 to 1000 Volts Forward Current - 1.0 Ampere

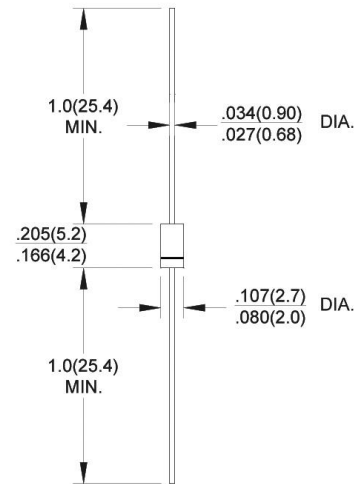
### FEATURES

- ◆ Low forward voltage drop
  - ◆ Low leakage current
  - ◆ High forward 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

### DO-41



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 101	HER 102	HER 103	HER 104	HER 105	HER 106	HER 107	HER 108	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 $T_A=55^\circ\text{C}$	$I_{(AV)}$	1.0								Amps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	30								Amps
Maximum instantaneous forward voltage at 1.0A	$V_F$	1.0		1.3		1.7			VOLTS	
Maximum DC Reverse Current at Rated DC Blocking Voltage	$T_A=25^\circ\text{C}$	5.0								uA
	$T_A=100^\circ\text{C}$	100								
Maximum reverse recovery time (NOTE 1)	$T_{RR}$	50				75				ns
Typical Junction Capacitance (Note 2)	$C_J$	15				12				pF
Typical Thermal Resistance (Note 3)	$R_{\theta JA}$	50								$^\circ\text{C/W}$
Operating and storage temperature range	$T_J, T_{STG}$	-55 to +150								$^\circ\text{C}$

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 Volts.

3. Thermal Resistance thermal Junction to Ambient at .375"(9.5mm) lead length, P.C. board mounted.

# HER101 THRU HER108

## SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 50 to 1000 Volts Forward Current - 1.0 Ampere

### RATING AND CHARACTERISTIC CURVES SS12 THRU SS110

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

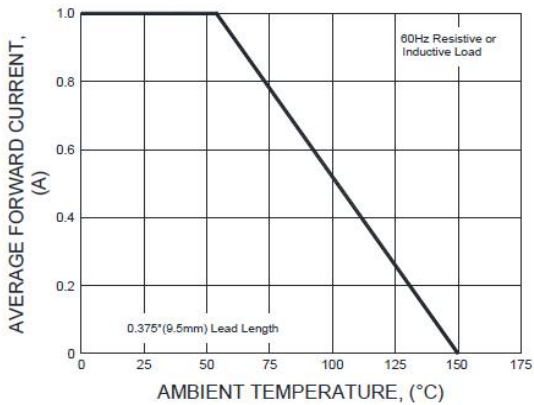


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

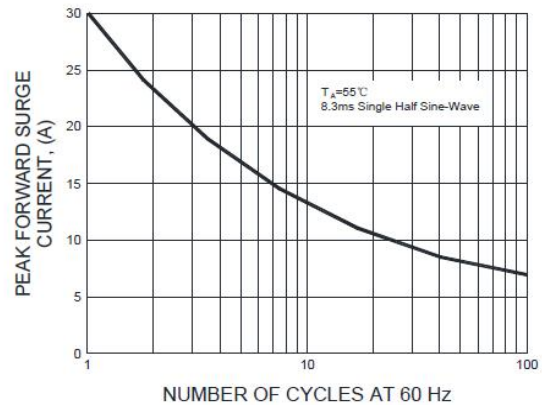


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

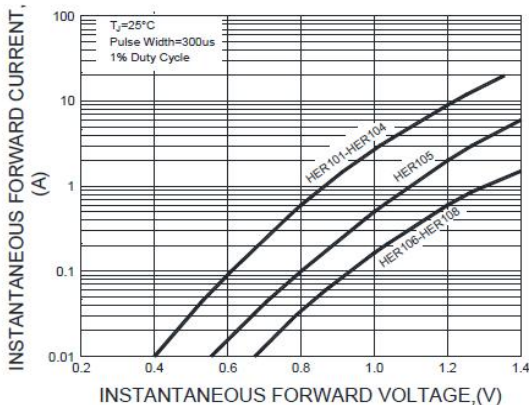


FIG.4-TYPICAL REVERSE CHARACTERISTICS

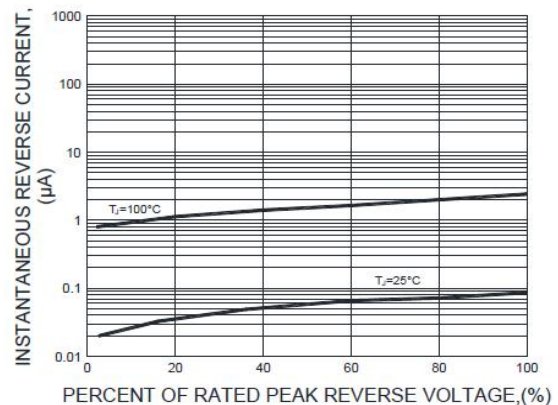


FIG.5-TYPICAL JUNCTION CAPACITANCE

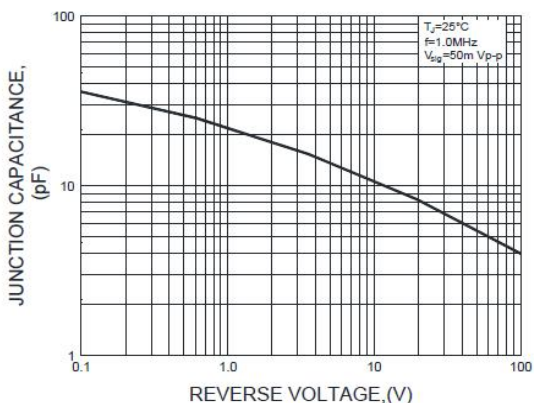
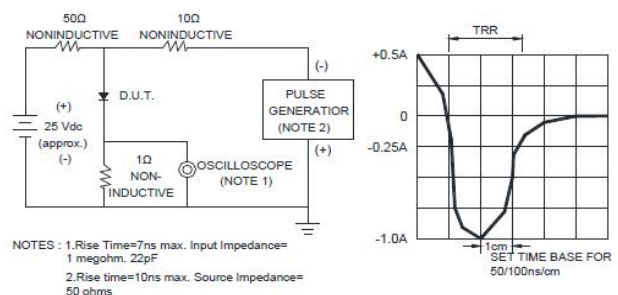


FIG.6-TEST CIRCUIT DIAGRAM AND FORWARD SURGE CURRENT



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