

# Kingtronics®

# HER201 THRU HER208

## HIGH EFFICIENCY RECTIFIERS

**REVERSE VOLTAGE** 50 to 1000 Volts    **FORWARD CURRENT** 2.0 Ampere

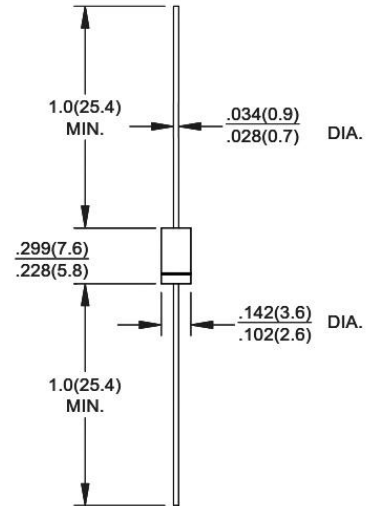
### FEATURES

- High speed switching
- Low forward voltage drop
- Low leakage current
- High forward surge capability
- High reliability
- 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-15



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified ,    Dimensions in inches and (millimeters)  
 Single phase, half wave, 60Hz, resistive or inductive load.  
 For capacitive load derate current by 20%

PARAMETER	SYMBOL	HER 201	HER 202	HER 203	HER 204	HER 205	HER 206	HER 207	HER 208	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 0.375"(9.5mm) lead length at $T_A=55^\circ C$	$I_{(AV)}$	2.0								Amp
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	60								Amps
Maximum instantaneous forward voltage at 2.0A	$V_F$	1.0		1.3		1.70			VOLTS	
Maximum DC Reverse Current $T_A=25^\circ C$ at Rated DC blocking voltage $T_A=100^\circ C$	$I_R$	5.0 100.0								uA
Maximum reverse recovery time (NOTE 1)	$T_{RR}$	50					75			ns
Typical Junction Capacitance (Note 2)	$C_J$	30					20			pF
Typical Thermal Resistance (Note 3)	$R_{\theta JA}$	50								°C/W
Operating junction and storage temperature range	$T_J, T_{STG}$	-65 to +150								°C

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 VDC.

3- Thermal resistance from junction to ambient at 0.375"(9.5mm) lead length, P.C.B. mounted.

**Kingtronics® International Company**

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## RATINGS AND CHARACTERISTIC CURVES

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

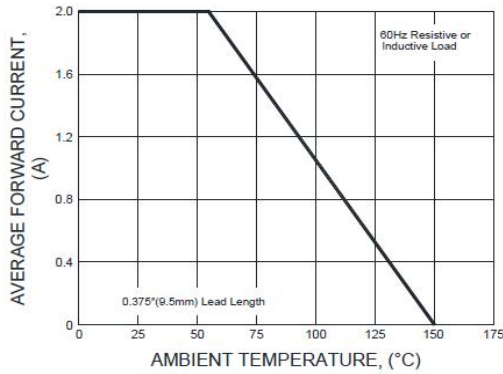


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

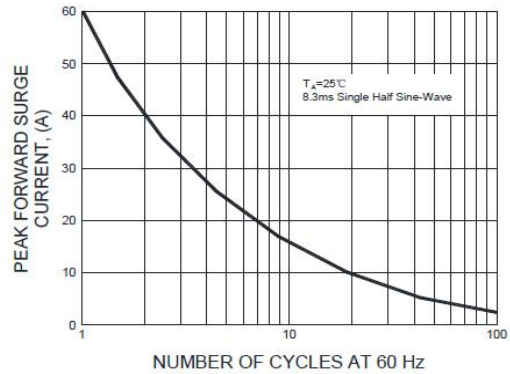


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

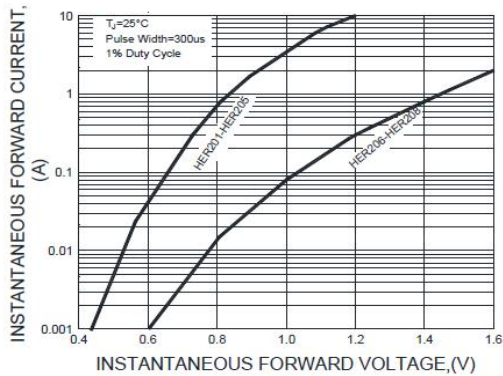


FIG.3-TYPICAL REVERSE CHARACTERISTICS

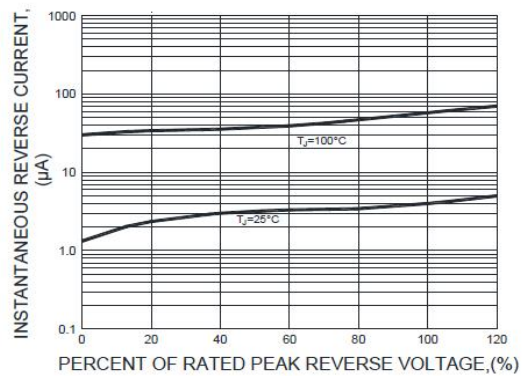


FIG.5-TYPICAL JUNCTION CAPACITANCE

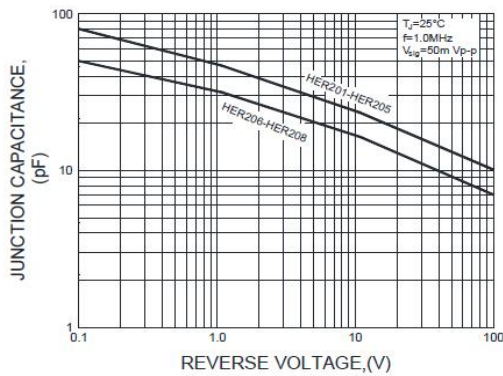
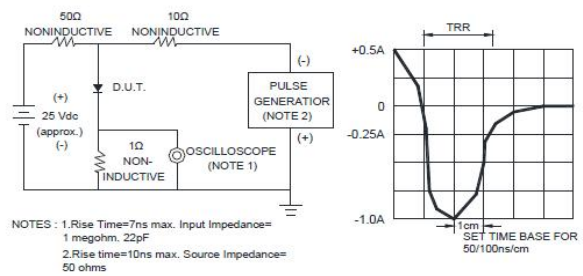


FIG.6-TEST CIRCUIT DIAGRAM AND FORWARD SURGE CURRENT



Note: Specifications are subject to change without notice.