

HER201 thru HER208

HIGH EFFICIENCY RECTIFIER



**CHENG-YI
ELECTRONIC**



FEATURES

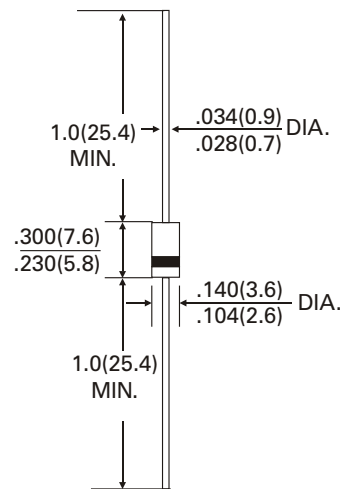
- Low power loss, high efficiency
- Low leakage
- Low forward voltage
- High current capability
- High speed switching
- High surge capability
- High reliability

MECHANICAL DATA

- Case: Molded plastic
- Epoxy: UL94V-0 rate flame retardant
- Lead: MIL-STD-202E method 208C guaranteed
- Mounting position: Any
- Weight: 0.35 grams

HIGH EFFICIENCY RECTIFIER
VOLTAGE RANGE -50 to 1000 Volts
CURRENT-2.0 Amperes

DO-15



Dimensions in inches and (millimeters)

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%.

MAXIMUM RATINGS (At T_A=25°C unless otherwise noted)

RATINGS	SYMBOL	HER201	HER202	HER203	HER204	HER205	HER206	HER207	HER208	UNITS
Maximum Recurrent 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 .375" (9.5mm) lead length @T _A =55°C	I _O	2.0								Amps
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	60								Amps
Typical Junction Capacitance (Note 2)	C _J	30					20			pF
Operating and Storage Temperature Range	T _J T _{STG}	-65 to +150								°C

ELECTRICAL CHARACTERISTICS (At T_A=25°C unless otherwise noted)

CHARACTERISTICS	SYMBOL	HER201	HER202	HER203	HER204	HER205	HER206	HER207	HER208	UNITS
Maximum Instantaneous Forward Voltage at 2.0A DC	V _F	1.0			1.3		1.85			Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage @T _A =25°C	I _R	5.0								uAmps
Maximum Full Load Reverse Current Average, Full Cycle .375, (9.5mm) Lead Length at @T _L =55°C		100								uAmps
Maximum Reverse Recovery Time (Note1)	t _{rr}	50				70				nSec

Notes : 1. Test 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

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RATING AND CHARACTERISTICS CURVES HER201 THRU HER208

Fig. 1 - TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

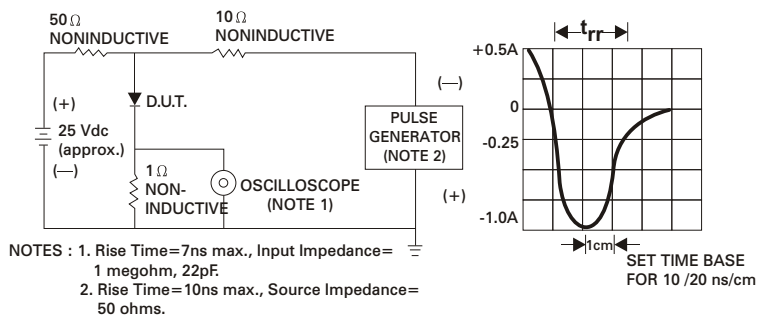


Fig. 2 - TYPICAL FORWARD CURRENT DERATING CURVE

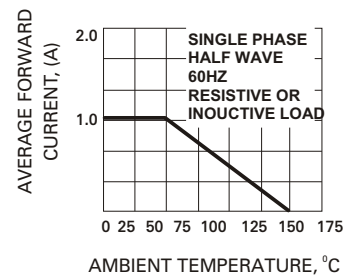


Fig.3 - TYPICAL REVERSE CHARACTERISTICS

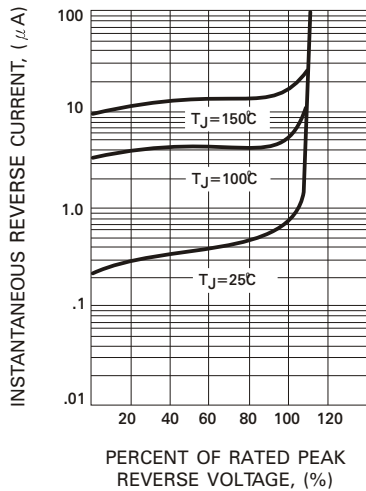


Fig. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

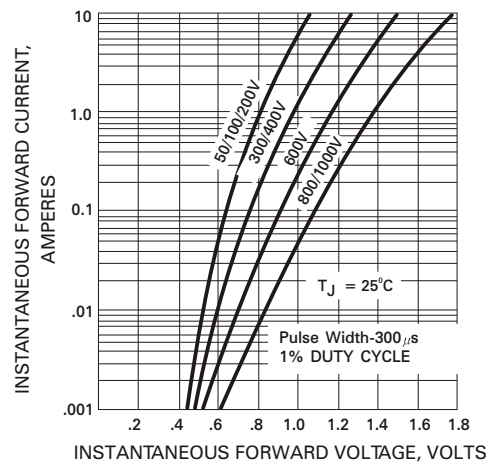


Fig.5 -MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

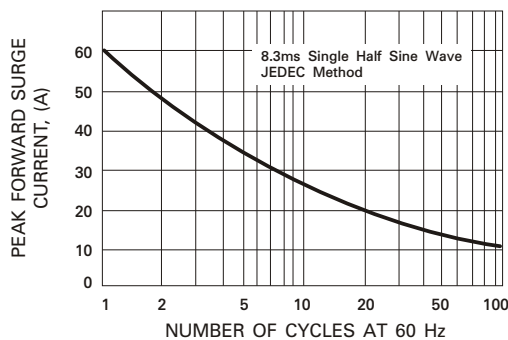


Fig.6 - TYPICAL JUNCTION CAPACITANCE

