



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

FEATURES

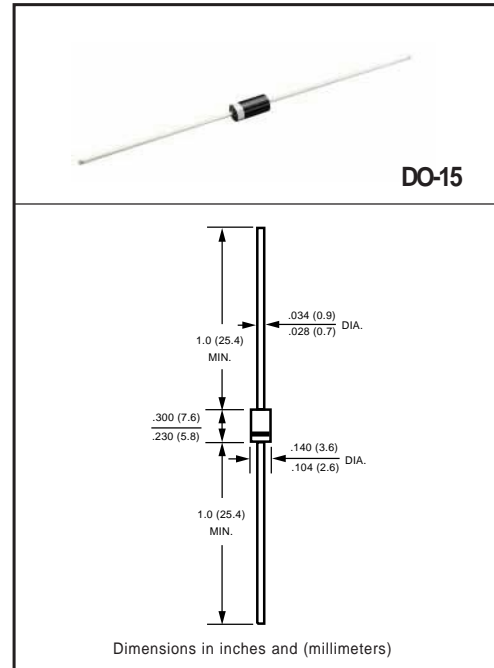
- * Low power loss,high efficiency
- * Low leakage
- * Low forward voltage drop
- * High current capability
- * High speed switching
- * High reliability
- * High current surge

MECHANICAL DATA

- * Epoxy: Device has UL flammability classification 94V-O
- * Case: Molded plastic
- * Lead: MIL-STD-202E method 208C guaranteed
- * Mounting position: Any
- * Weight: 0.4 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.
resistive or inductive load.



MAXIMUM RATINGS (@ TA=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 at TA = 50°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 Current Squared Time	I^2T	14.9								A ² S
Typical Thermal Resistance (Note 1)	$R_{\theta JL}$	10								°C/W
Typical Thermal Resistance (Note 1)	$R_{\theta JC}$	15								°C/W
Typical Thermal Resistance (Note 1)	$R_{\theta JA}$	40								°C/W
Typical Junction Capacitance (Note 2)	C_J	30						20		pF
Operating Temperature Range	T_J	150								°C
Storage Temperature Range	T_{STG}	-55 to + 150								°C

ELECTRICAL CHARACTERISTICS(@TA=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		1.7			Volts	
Maximum Full Load Reverse Current, Full cycle Average $T_L = 55^\circ C$	I_R	100								μA	
Maximum Average Reverse Current @ TA = 25°C		5								μA	
at Rated DC Blocking Voltage @ TA = 100°C		100								μA	
Maximum Reverse Recovery Time (Note 4)	t_{rr}	50					75				nSec

- NOTES : 1. Thermal Resistance : At 9.5mm lead length,PCB mounted.
 2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.
 3. "Fully ROHS compliant", "100% Sn plating (Pb-free)".
 4. Test Conditions: $I_F = 0.5A$, $I_R = -1.0A$, $I_{RR} = -0.25A$.
 5. Available in Halogen-free epoxy by adding suffix -HF after the part nbr.

RATING AND CHARACTERISTICS CURVES (HER201 THRU HER208)

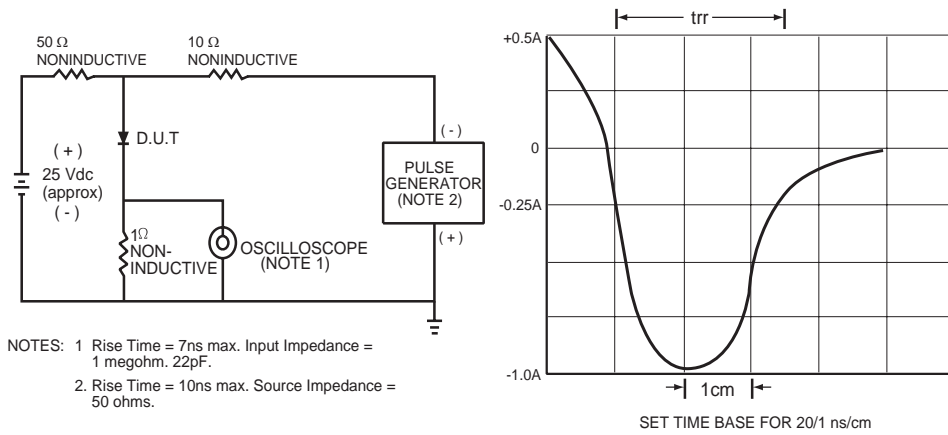


FIG.1 TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

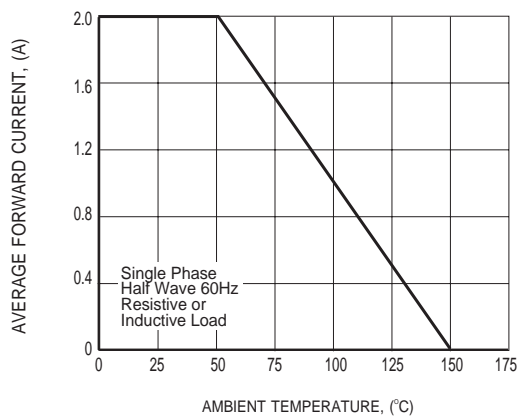


FIG.2 TYPICAL FORWARD CURRENT DERATING CURVE

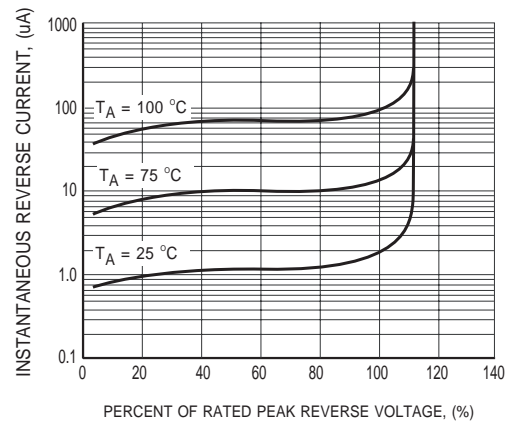


FIG.3 TYPICAL REVERSE CHARACTERISTICS

RATING AND CHARACTERISTICS CURVES (HER201 THRU HER208)

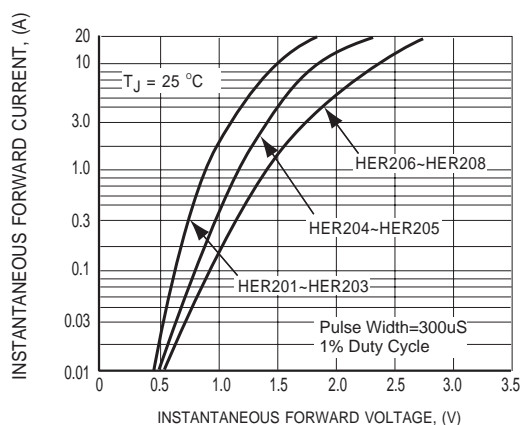


FIG.4 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

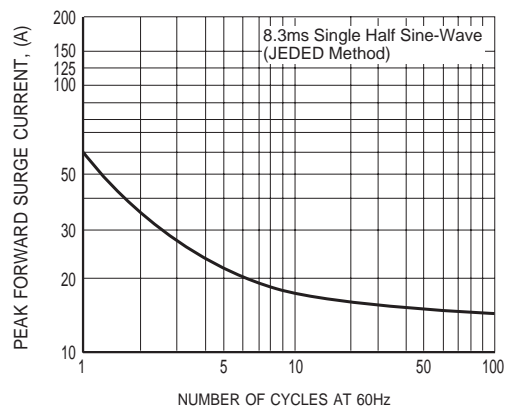


FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

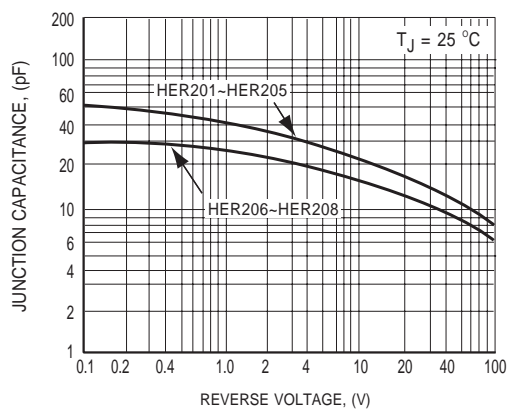
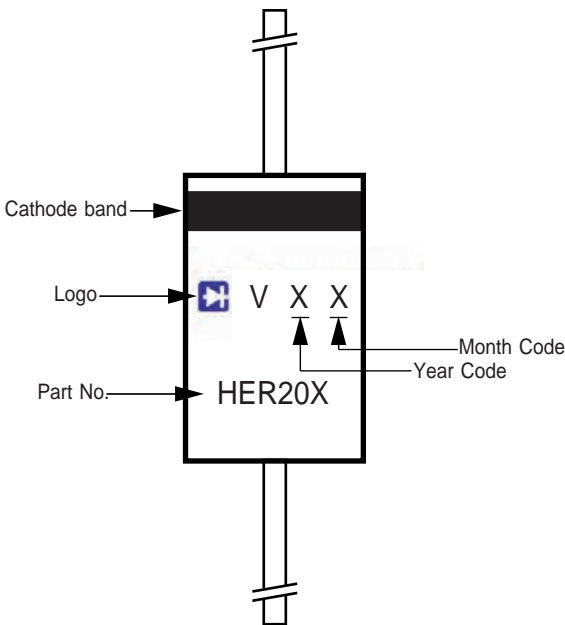


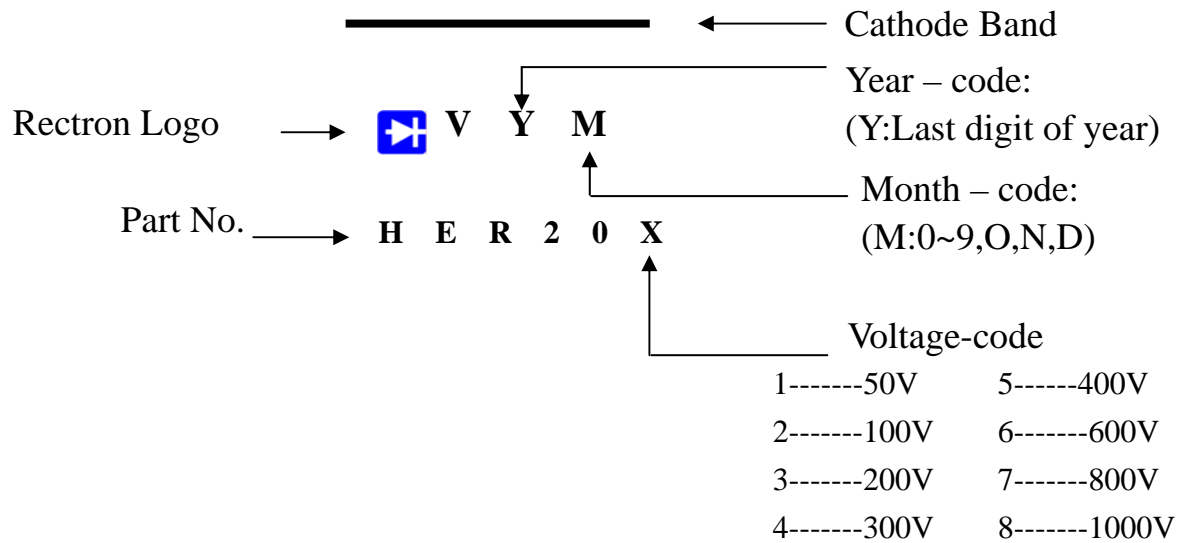
FIG.6 TYPICAL JUNCTION CAPACITANCE

THE MARKING OF HER20X

Marking Description:



Marking Description



PACKAGING OF DIODE AND BRIDGE RECTIFIERS

BULK PACK

PACKAGE	PACKING CODE	EA PER BOX	INNER BOX SIZE (mm)	CARTON SIZE (mm)	EA PER CARTON	GROSS WEIGHT(Kg)
DO-15	-B	500	194*84*21	450*220*255	25,000	12.74

REEL PACK

PACKAGE	PACKING CODE	EA PER REEL	COMPONENT SPACE(mm)	TAPE SPACE (mm)	REEL DIA (mm)	CARTON SIZE (mm)	EA PER CARTON	GROSS WEIGHT(Kg)
DO-15	-T	4,000	5.0	52	330	355*350*335	16,000	10.05

AMMO PACK

PACKAGE	PACKING CODE	REEL (EA)	COMPONENT SPACE(mm)	TAPE SPACE (mm)	BOX SIZE (mm)	CARTON SIZE(mm)	CARTON (EA)	GROSS WEIGHT (Kg)
DO-15	-F	1,500	5.0	52	255*73*100	400*268*225	15,000	8.8

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