



HIGH EFFICIENCY RECTIFIER

VOLTAGE RANGE 50 to 1000 Volts CURRENT 2.0 Amperes

FEATURES

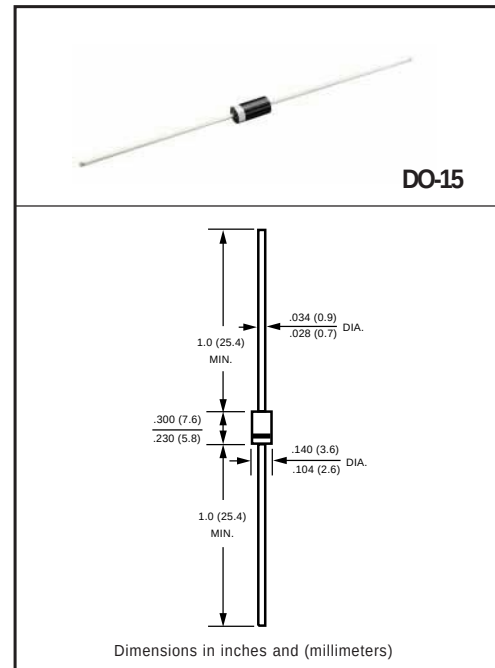
- * Low power loss, high efficiency
- * Low leakage
- * Low forward voltage drop
- * High current capability
- * High speed switching
- * High reliability
- * High current surge

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.



Dimensions in inches and (millimeters)

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 T _A = 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 ² T	14.9								A ² S	
Typical Thermal Resistance (Note 1)	R _{θJL}	10								°C/W	
Typical Thermal Resistance (Note 1)	R _{θJC}	15								°C/W	
Typical Thermal Resistance (Note 1)	R _{θJA}	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°C		I _R	100								μA
Maximum Average Reverse Current	@ T _A = 25°C		5								μA
at Rated DC Blocking Voltage	@T _A = 100°C		100								μA
Maximum Reverse Recovery Time (Note 4)		trr	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: $I_F = 0.5\text{A}$, $I_R = -1.0\text{A}$, $I_{RR} = -0.25\text{A}$.
5. Available in Halogen-free epoxy by adding suffix -HF after the part nbr.

2011-03
REV:B

RATING AND CHARACTERISTICS CURVES (HER201 THRU HER208)

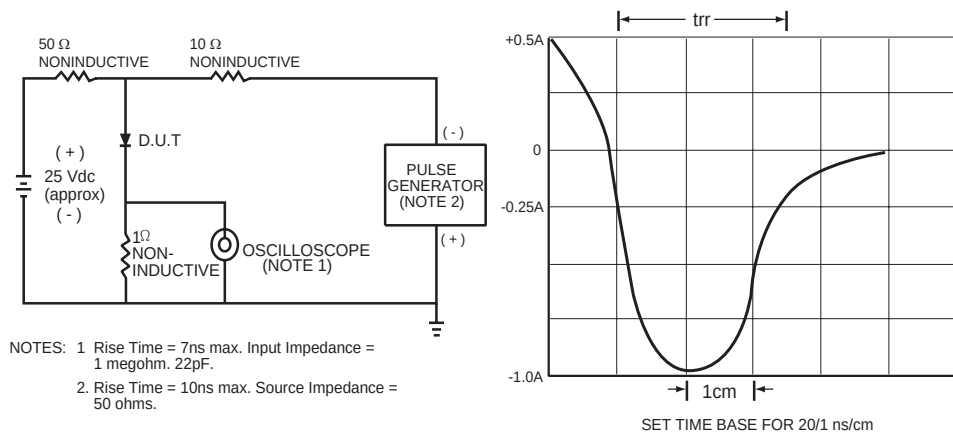


FIG.1 TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

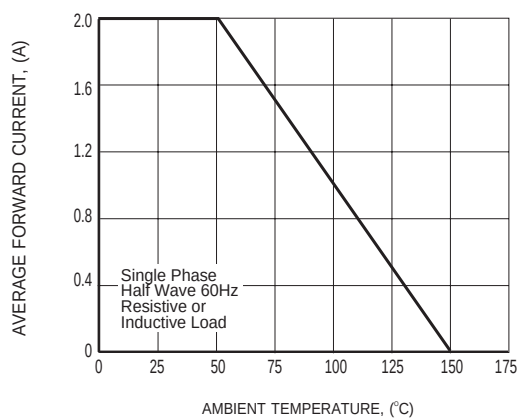


FIG.2 TYPICAL FORWARD CURRENT DERATING CURVE

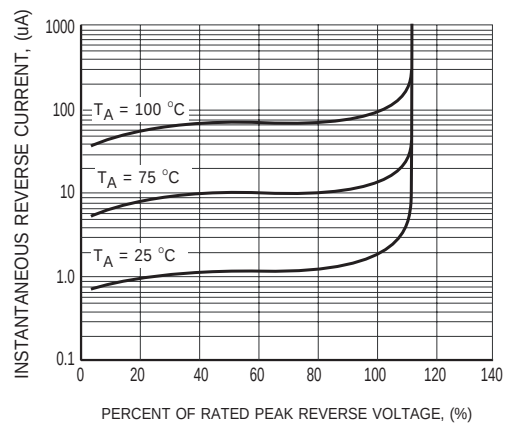


FIG.3 TYPICAL REVERSE CHARACTERISTICS

RATING AND CHARACTERISTICS CURVES (HER201 THRU HER208)

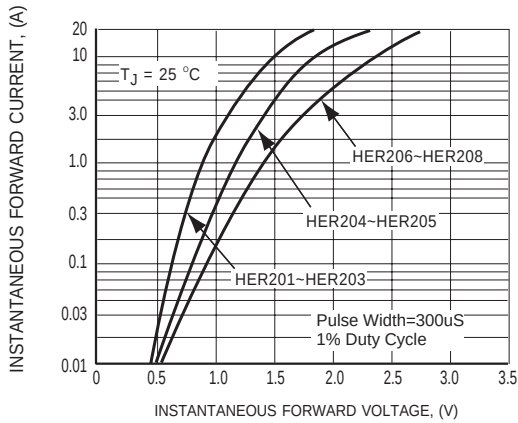


FIG.4 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

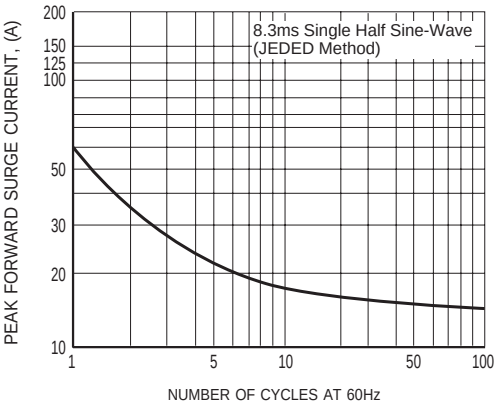


FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

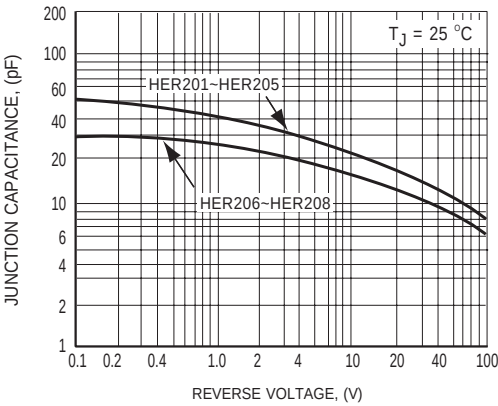
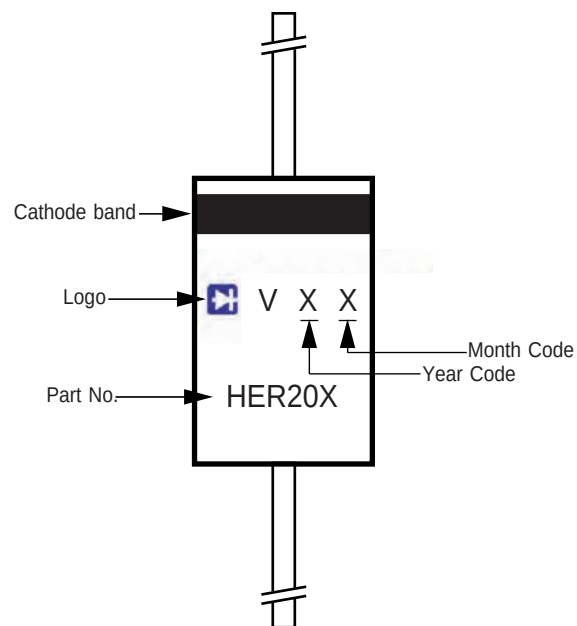


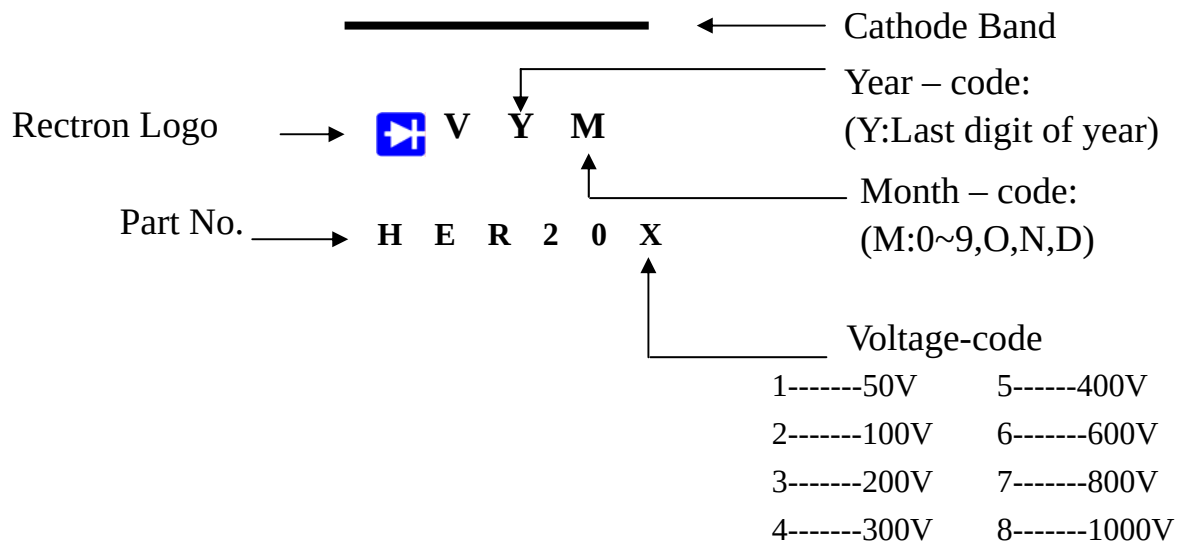
FIG.6 TYPICAL JUNCTION CAPACITANCE

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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