

HIGH EFFICIENCY RECTIFIER

VOLTAGE RANGE 50 to 1000 Volts CURRENT 1.0 Ampere

HER101-HER108 series not recommended; use HER101G-HER108G series instead

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

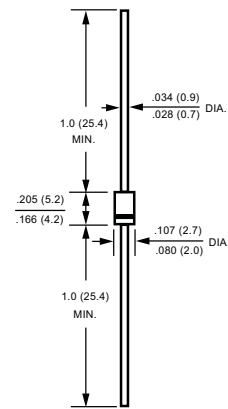
- * Epoxy: Device has UL flammability classification 94V-O
- * Case: Molded plastic
- * Lead: MIL-STD-202E method 208C guaranteed
- * Mounting position: Any
- * Weight: 0.33 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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



DO-41



Dimensions in inches and (millimeters)

MAXIMUM RATINGS (@ TA=25 °C unless otherwise noted)

RATINGS	SYMBOL	HER101	HER102	HER103	HER104	HER105	HER105P	HER106	HER107	HER108	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	300	400	400	600	800	1000	Volts
Maximum RMS Voltage	V_{RMS}	35	70	140	210	280	280	420	560	700	Volts
Maximum DC Blocking Voltage	V_{DC}	50	100	200	300	400	400	600	800	1000	Volts
Maximum Average Forward Rectified Current at $T_A = 50^\circ\text{C}$	I_O	1.0									Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	30									Amps
Typical Current Squared Time	i^2t	3.7									A ² S
Typical Thermal Resistance (Note 1)	$R_{\theta JL}$	18									°C/W
Typical Thermal Resistance (Note 1)	$R_{\theta JA}$	50									°C/W
Typical Junction Capacitance (Note 2)	C_J	15							12		pF
Operating Temperature Range	T_J	-55 to + 150									°C
Storage Temperature Range	T_{STG}	-55 to + 150									°C

ELECTRICAL CHARACTERISTICS (@TA=25 °C unless otherwise noted)

CHARACTERISTICS	SYMBOL	HER101	HER102	HER103	HER104	HER105	HER105P	HER106	HER107	HER108	UNITS
Maximum Instantaneous Forward Voltage at 1.0A DC	V_F	1.0			1.3	1.0			1.7		Volts
Maximum Full Load Reverse Current, Full cycle Average $T_L = 55^\circ\text{C}$	I_R	100									μA
Maximum Average Reverse Current @ $T_A = 25^\circ\text{C}$		1									μA
at Rated DC Blocking Voltage @ $T_A = 100^\circ\text{C}$		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. " RoHS compliant"
4. Test Conditions: $I_F = 0.5A$, $I_R = -1.0A$, $I_{RR} = -0.25A$.

2026-02
REV:D

RATING AND CHARACTERISTICS CURVES (HER101 THRU HER108)

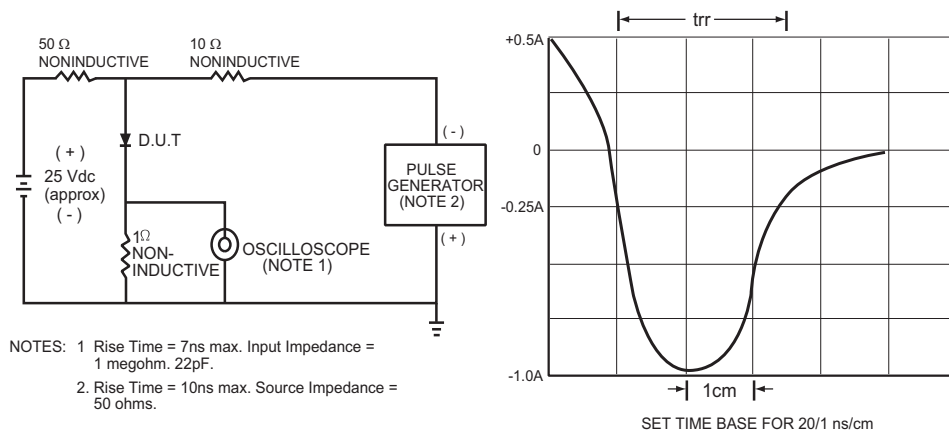


FIG.1 TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC

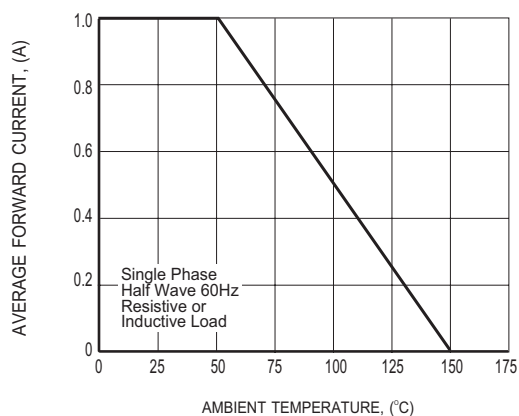


FIG.2 TYPICAL FORWARD CURRENT DERATING CURVE

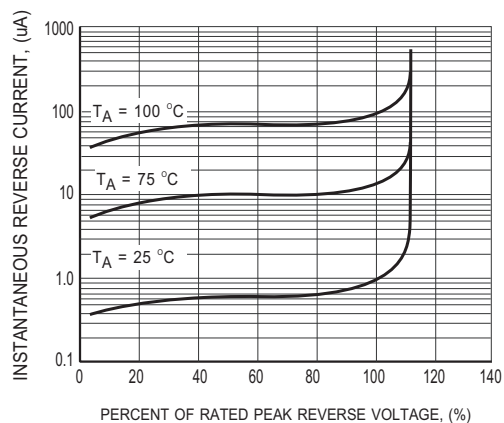


FIG.3 MAXIMUM REVERSE CHARACTERISTICS

RATING AND CHARACTERISTICS CURVES (HER101 THRU HER108)

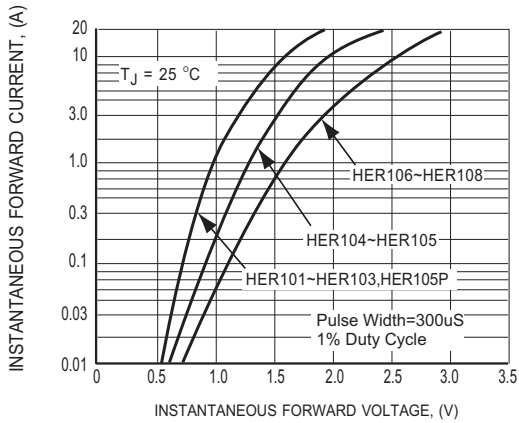


FIG.4 MAXIMUM INSTANTANEOUS FORWARD CHARACTERISTICS

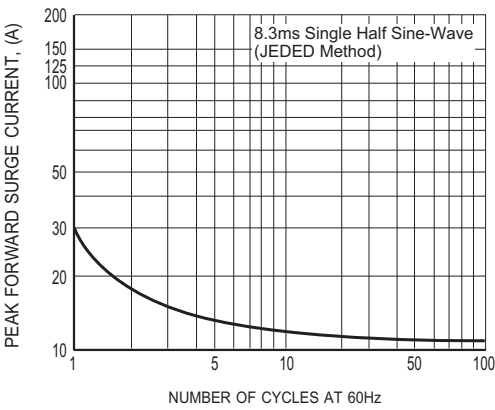


FIG.5 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

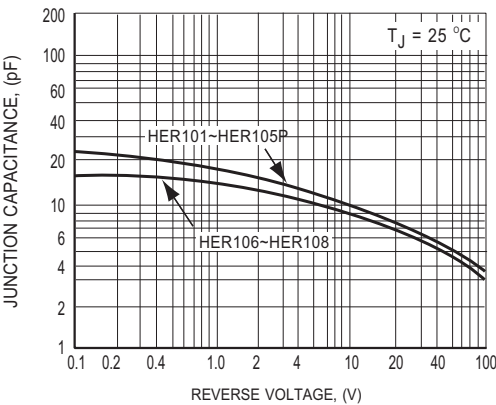
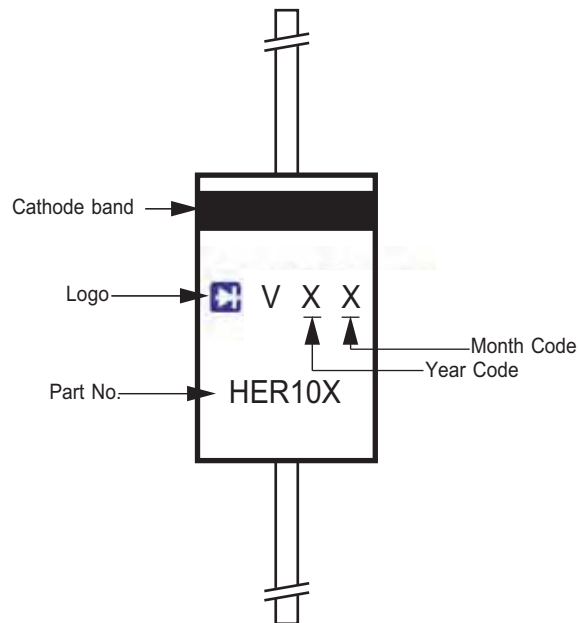


FIG.6 TYPICAL JUNCTION CAPACITANCE



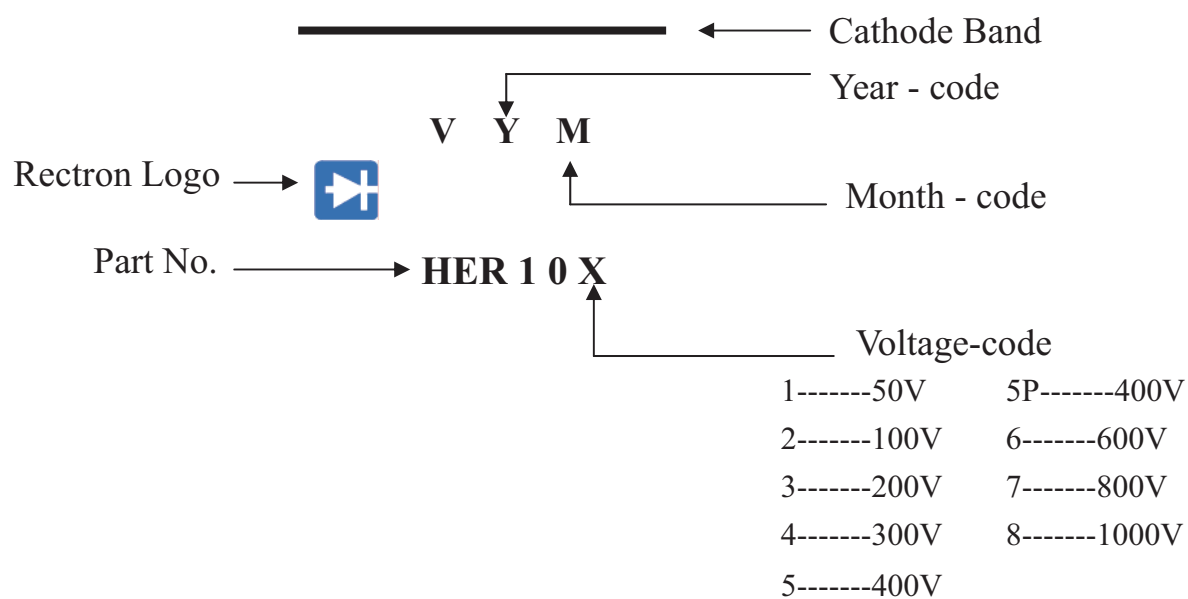
THE MARKING OF HER10X

Marking Description:



 **RECTRON**

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-41	-B	1,000	194*75*21	415*220*255	50,000	16.2

REEL PACK

PACKAGE	PACKING CODE	EA PER REEL	EA PER INNER BOX	COMPONENT SPACE (mm)	TAPE SPACE (mm)	REEL DIA (mm)	CARTON SIZE (mm)	EA PER CARTON	GROSS WEIGHT(Kg)
DO-41	-T	5,000	5,000	5.0	52	330	355*350*335	20,000	10.49

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-41	-F	3,000	5.0	52	255*73*100	400*268*225	30,000	13.0
DO-41	-E	3,000	5.0	26	256*48*94	365*270*217	42,000	12.41

