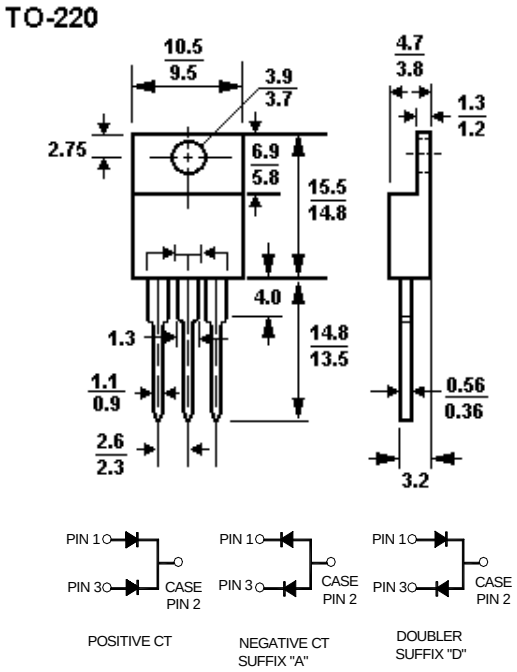
HER1601CT THRU HER1608CT

GLASS PASSIVATED HIGH EFFICENCY RECTIFIERS

Reverse Voltage – 50 to 1000 Volts

Forward Current – 16.0 Amperes



Dimensions in mm

Features

- Plastic package has Underwriters Laboratory Flammabiliy Classification 94V-O ctilizing Flame Retardant Epoxy Molding Compound.
- Low power loss, high efficiency.
- Low forward voltage, high current capability.
- High surge capacity.
- Ultra fast recovery times, high voltage.

Mechanical Data

- Case: Molded plastic, TO-220
- Epoxy: UL 94V-O rate flame retardant.
- Terminals: leads solderable per MIL-STD-202, method 208 guaranteed
- Polarity: As marked
- Mounting Position: Any

Absolute Maximum Ratings and 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%.

	Symbols	HER 1601CT	HER 1602CT	HER 1603CT	HER 1604CT	HER 1605CT	HER 1606CT	HER 1607CT	HER 1608CT	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_C = 100?	$I_{(AV)}$	16.0								Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	125								Amps
Maximum forward voltage at 8.0A DC and 25?	V_F	1.0			1.3		1.7			Volts
Typical junction Capacitance (Note1)	C_J	80					50			pF
Maximum reverse recovery time (Note2)	T_{RR}	50					80			ns
Typical thermal resistance (Note3)	$R_{\Theta JC}$	3.0								? /W
Maximum reverse current at rated DC blocking voltage @T_A = 25?	I_R	10.0								µAmps
Maximum reverse current at rated DC blocking voltage @T_A =125?	I_R	500								µAmps
Operating and storage temperature range	T_J ,T_s	-55 to +150								?

Notes :1. Measured at 1 MHz and applied reverse voltage of 4.0 VDC.

2. Reverse recovery test conditions: I_F=0.5A, I_R=1A, I_{RR}=0.25A.

3. Thermal resistance from junction to case per leg mounted on heatsink.

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

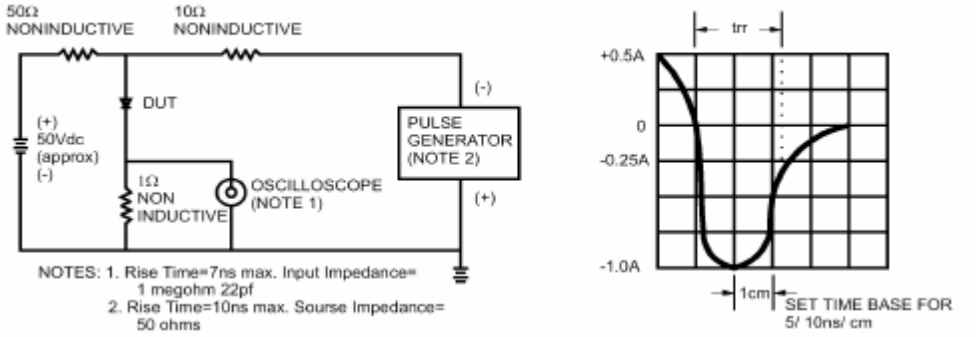

FIG.2- MAXIMUM FORWARD CURRENT DERATING CURVE

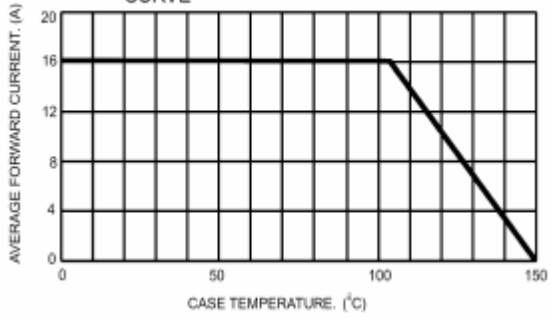

FIG.3- TYPICAL REVERSE CHARACTERISTICS PER LEG

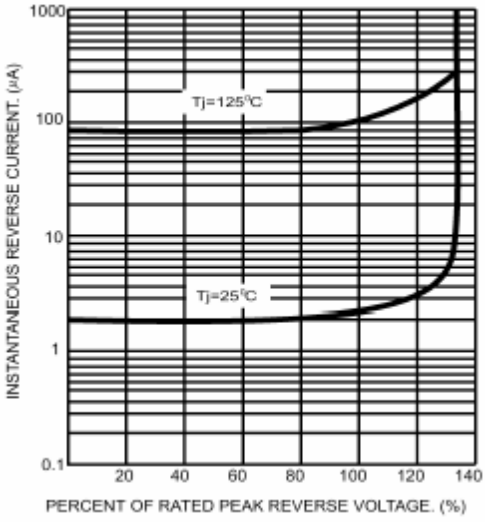

FIG.4- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

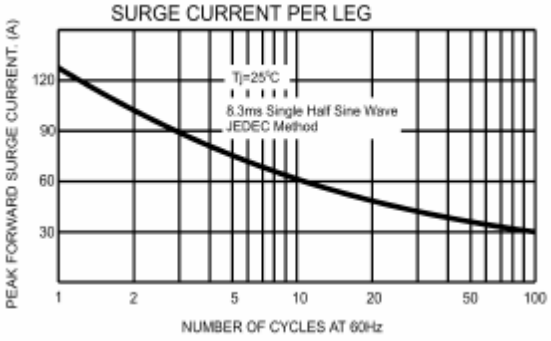

FIG.5- TYPICAL JUNCTION CAPACITANCE PER LEG

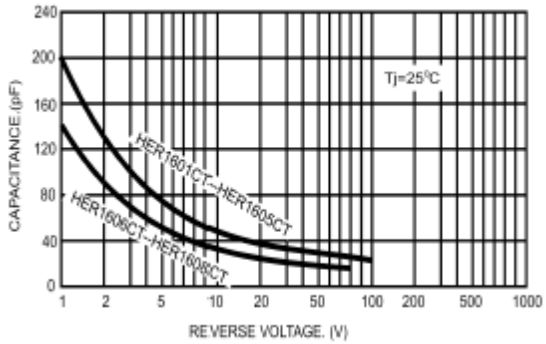

FIG.6- TYPICAL FORWARD CHARACTERISTICS PER LEG