

Pb Free Plating Product

HER1601CT thru HER1608CT



16Ampere Heat Sink Dual Common Cathode High Efficiency Rectifiers

Features

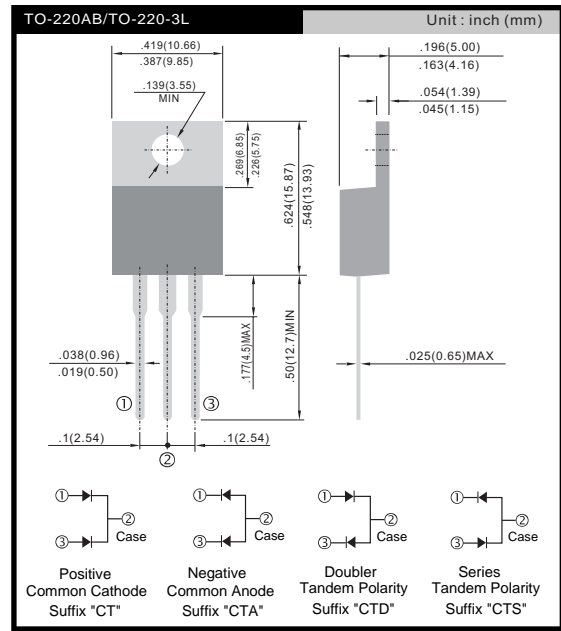
- ★ Fast switching for high efficiency
- ★ Low forward voltage drop
- ★ High current capability
- ★ Low reverse leakage current
- ★ High surge current capability

Application

- ★ Automotive Inverters and Solar Inverters
- ★ Plating Power Supply, SMPS and UPS
- ★ Car Audio Amplifiers and Sound Device Systems

Mechanical Data

- ★ Case: Heatsink TO-220AB open metal package
- ★ Epoxy: UL 94V-0 rate flame retardant
- ★ Terminals: Solderable per MIL-STD-202 method 208
- ★ Polarity: As marked on diode body
- ★ Mounting position: Any
- ★ Weight: 2.0 gram approximately



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted)

PARAMETER	SYMBOL	HER 1601CT	HER 1602CT	HER 1603CT	HER 1604CT	HER 1605CT	HER 1606CT	HER 1607CT	HER 1608CT	UNIT
Maximum repetitive peak reverse voltage	V _{RRM}	50	100	200	300	400	600	800	1000	V
Maximum RMS voltage	V _{RMS}	35	70	140	210	280	420	560	700	V
Maximum DC blocking voltage	V _{DC}	50	100	200	300	400	600	800	1000	V
Maximum average forward rectified current	I _{F(AV)}	16								A
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I _{FSM}	125								A
Maximum instantaneous forward voltage @ 8 A (Note 1)	V _F	1.0			1.3		1.7			V
Maximum reverse current @ rated V _R T _J =25°C	I _R	10								μA
T _J =125°C	I _R	400								
Maximum reverse recovery time (Note 2)	t _{rr}	50						80		ns
Typical junction capacitance (Note 3)	C _J	80						50		pF
Typical thermal resistance	R _{θJC}	1.5								°C/W
Operating junction temperature range	T _J	- 55 to +150								°C
Storage temperature range	T _{STG}	- 55 to +150								°C

Note 1: Pulse test with PW=300μs, 1% duty cycle
 Note 2: Test conditions: I_F=0.5A, I_R=1.0A, I_{RR}=0.25A
 Note 3: Measured at 1 MHz and applied reverse voltage of 4.0V DC.

RATINGS AND CHARACTERISTICS CURVES

($T_A=25^{\circ}\text{C}$ unless otherwise noted)

FIG. 1 MAXIMUM FORWARD CURRENT DERATING CURVE

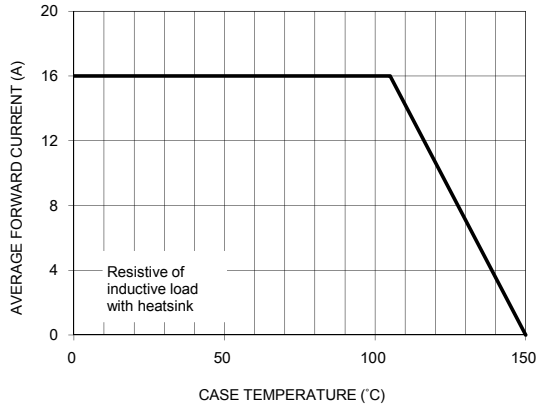


FIG. 2 TYPICAL REVERSE CHARACTERISTICS

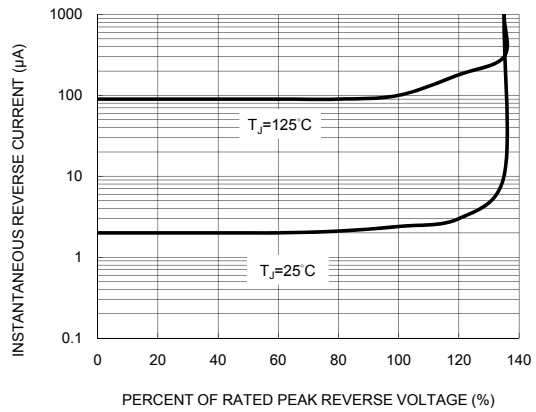


FIG. 3 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

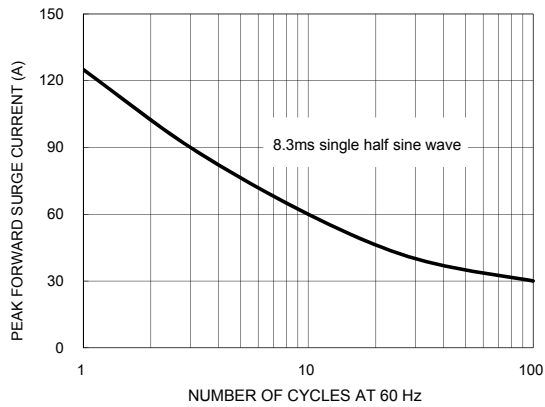


FIG. 4 TYPICAL FORWARD CHARACTERISTICS

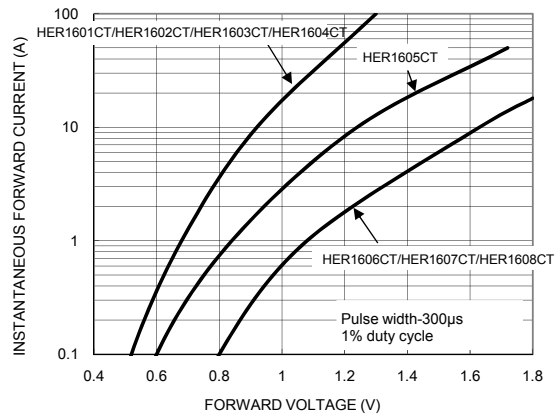


FIG. 5 TYPICAL JUNCTION CAPACITANCE

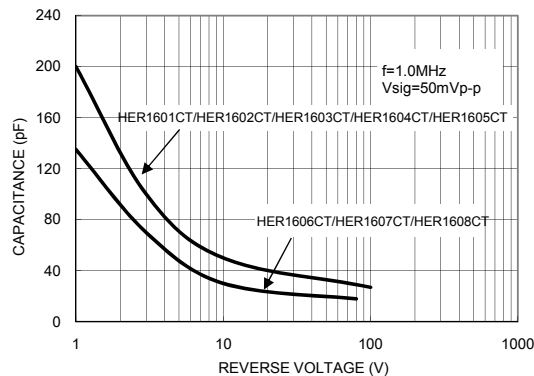


FIG. 6 REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

