

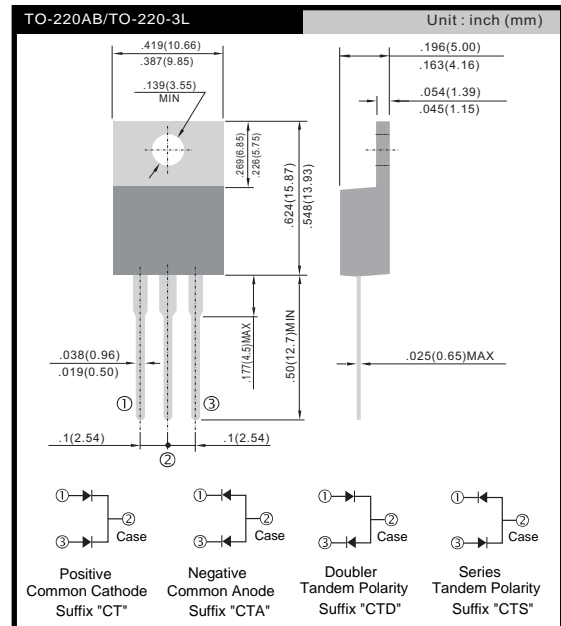
Pb Free Plating Product

HER1001CTA thru HER1008CTA



10Ampere Heat Sink Dual Common Anode High Efficiency Rectifiers

<p>Features</p> <ul style="list-style-type: none"> * Fast switching for high efficiency * Low forward voltage drop * High current capability * Low reverse leakage current * High surge current capability <p>Application</p> <ul style="list-style-type: none"> * Automotive Inverters and Solar Inverters * Plating Power Supply, SMPS and UPS * Car Audio Amplifiers and Sound Device Systems
<p>Mechanical Data</p> <ul style="list-style-type: none"> * 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 1001CTA	HER 1002CTA	HER 1003CTA	HER 1004CTA	HER 1005CTA	HER 1006CTA	HER 1007CTA	HER 1008CTA	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)}	10									A
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I _{FSM}	125									A
Maximum instantaneous forward voltage @ 5 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
Maximum reverse current @ rated V _R T _J =125°C	I _R	400									μA
Maximum reverse recovery time (Note 2)	t _{rr}	50			80						ns
Typical junction capacitance (Note 3)	C _J	60			40						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

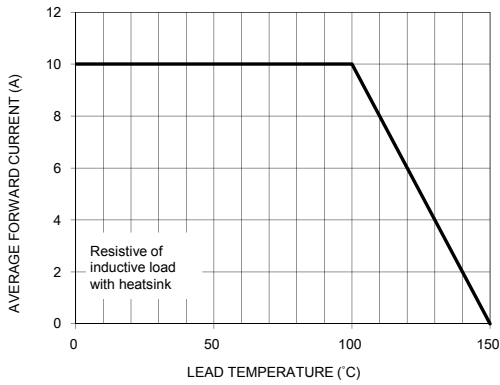


FIG. 2 TYPICAL REVERSE CHARACTERISTICS

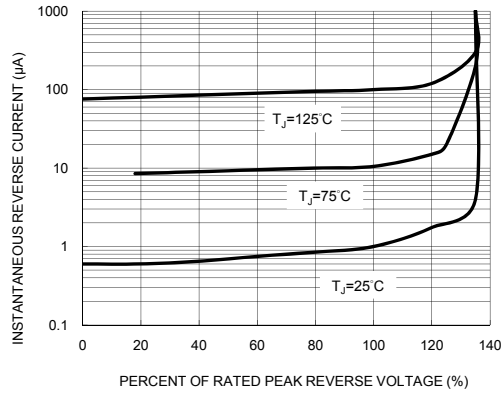


FIG. 3 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

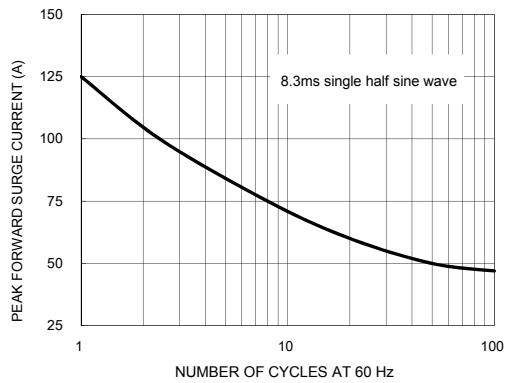


FIG. 4 TYPICAL FORWARD CHARACTERISTICS

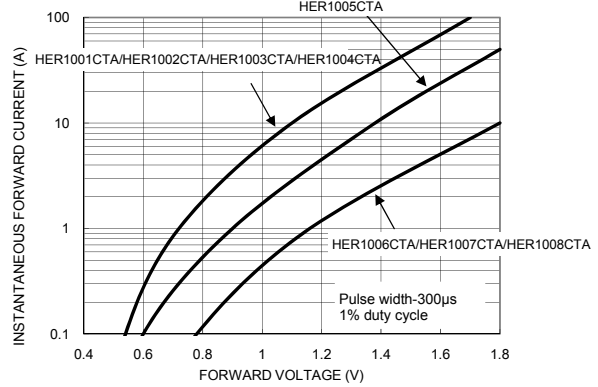


FIG. 5 TYPICAL JUNCTION CAPACITANCE

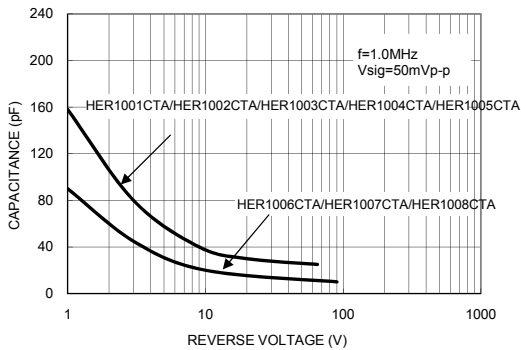


FIG.6 REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

