

Pb Free Plating Product

HER1002CL thru HER1012CL



10.0 Ampere Heatsink Dual Series Connection High Efficiency Rectifiers

<p>Features</p> <ul style="list-style-type: none"> ※ ThinkSemi latest&matured process FRD/FRED ※ 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 ※ Car Audio Amplifiers and Sound Device Systems ※ Plating Power Supply, Motor Control, UPS and SMPS etc. <p>Mechanical Data</p> <ul style="list-style-type: none"> ※ Case: Heatsink open metal TO-220AB/TO-220-3L 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 	<p>TO-220AB/TO-220-3L Unit:inch(mm)</p> <p>① ② ③ Case</p> <p>① ② ③ Case</p> <p>① ② ③ Case</p> <p>① ② ③ Case</p> <p>Positive Common Cathode Suffix "CT"</p> <p>Negative Common Anode Suffix "CA"</p> <p>Doubler Doubler Polarity Suffix "CR"</p> <p>Series Series Connection Suffix "CL"</p>
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MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.
 Single phase, half wave, 60Hz, resistive or inductive load.
 For capacitive load, derate current by 20%.

PARAMETER	SYMBOL	HER1002CL	HER1003CL HER1004CL	HER1006CL	HER1008CL	HER1010CL	HER1012CL	UNIT
Maximum Recurrent Peak Reverse Voltage	VRRM	200	400	600	800	1000	1200	V
Maximum RMS Voltage	VRMS	140	280	420	560	700	840	V
Maximum DC Blocking Voltage	VDC	200	400	600	800	1000	1200	V
Maximum Average Forward Rectified Current TC=125°C (Total Device 2x5.0A=10.0A)	IF(AV)	10.0						A
Peak Forward Surge Current, 8.3ms single Half sine-wave superimposed on rated load (JEDEC method)(Per Diode/Per Leg)	IFSM	125						A
Maximum Instantaneous Forward Voltage @5.0A(Per Diode/Per Leg)	VF (Typical)	0.85-1.00	1.00-1.30	1.30-1.70	1.30-1.70			V
Maximum DC Reverse Current @TJ=25°C At Rated DC Blocking Voltage @TJ=125°C	IR	1.0 100						µA µA
Maximum Reverse Recovery Time (Note1)	Trr	35-50			50-75			nS
Typical Junction Capacitance (Note 2)	CJ	50						pF
Typical Thermal Resistance (Note 3)	RθJC	1.5						°C/W
Operating Junction and Storage Temperature Range	TJ,TSTG	-55 to +175						°C

Note:(1)Reverse recovery test conditions IF = 0.5A, IR = 1.0A, Irr = 0.25A.
 Note:(2)Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts DC.
 Note:(3)Thermal Resistance junction to case.

FIG.1 - FORWARD CURRENT DERATING CURVE

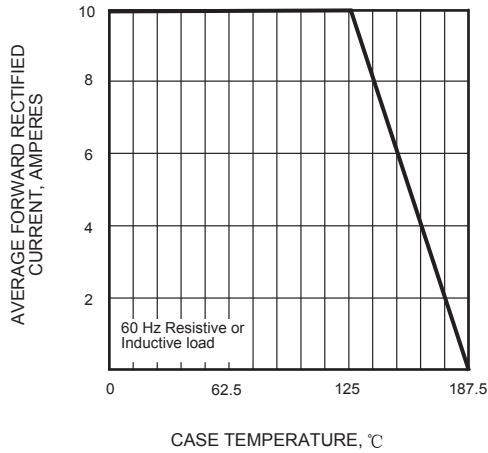


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

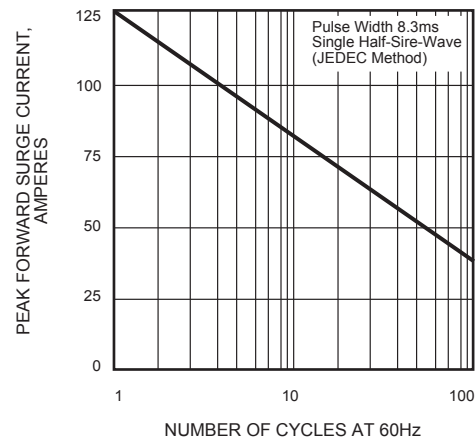


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

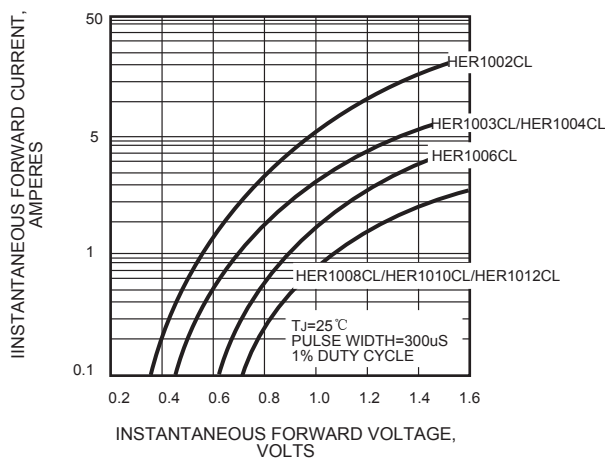


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

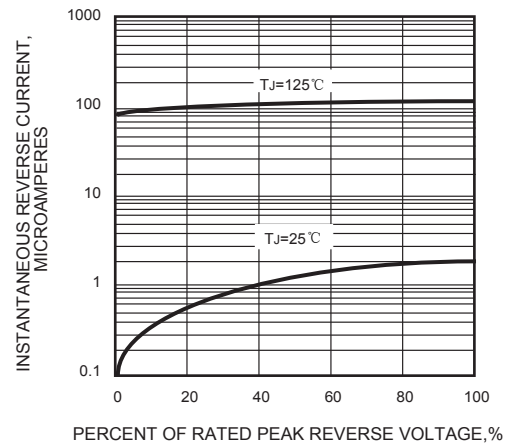


FIG.5 - TYPICAL JUNCTION CAPACITANCE

