

MUR805CT-MUR860CT

8A ULTRA FAST RECTIFIERS

FEATURES

- Available as "HR" (high reliability) screened per MIL-PRF-19500, JANTX level. Add "HR" suffix to base part number.
- Available as non-RoHS (Sn/Pb plating), standard, and as RoHS by adding "-PBF" suffix.

MAXIMUM RATINGS

Rating	Symbol	MURH805CT	MURH810CT	MURH820CT	MURH840CT	MURH860CT	Unit	
Peak repetitive reverse voltage	V_{RRM}	50	100	200	400	600	V	
Maximum RMS voltage	V_{RMS}	35	70	140	280	420		
DC blocking voltage	V_R	50	100	200	400	600		
Average forward current (Rated V_R)	$I_{F(AV)}$	8 @ $T_C = 120^\circ\text{C}$						A
Peak forward surge current (8.3ms, half sine)	I_{FSM}	65						A
Operating and storage junction temperature range	T_J, T_{stg}	-55 to +150						$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS ($T_C = 25^\circ\text{C}$ unless otherwise noted)

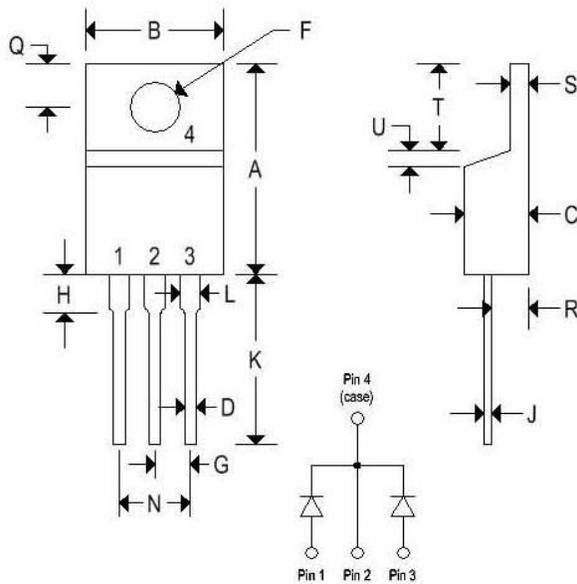
Parameter	Symbol	MURH805CT	MURH810CT	MURH820CT	MURH840CT	MURH860CT	Unit
Maximum instantaneous forward voltage ⁽¹⁾ ($I_F = 4\text{A}, T_J = 25^\circ\text{C}$)	V_F	2.2				2.8	V
Maximum DC reverse current ⁽¹⁾ (Rated dc voltage, $T_J = 25^\circ\text{C}$) (Rated dc voltage, $T_J = 100^\circ\text{C}$)	I_R	10 800					μA
Maximum reverse recovery time ($I_F = 1\text{A}, di/dt = 50\text{A}/\mu\text{s}$)	t_{rr}	35			50		ns

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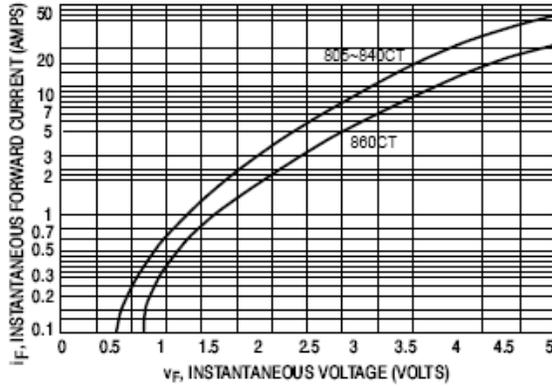
MECHANICAL CHARACTERISTICS

Case	TO-220AB
Marking	Alpha-numeric
Pin out:	See below



	TO-220AB			
	Inches		Millimeters	
	Min	Max	Min	Max
A	0.570	0.620	14.480	15.750
B	0.380	0.405	9.660	10.280
C	0.160	0.190	4.070	4.820
D	0.025	0.035	0.640	0.880
F	0.142	0.147	3.610	3.730
G	0.095	0.105	2.420	2.660
H	0.110	0.155	2.800	3.930
J	0.018	0.025	0.460	0.640
K	0.500	0.562	12.700	14.270
L	0.045	0.060	1.150	1.520
N	0.190	0.210	4.830	5.330
Q	0.100	0.120	2.540	3.040
R	0.080	0.110	2.040	2.790
S	0.045	0.055	1.150	1.390
T	0.235	0.255	5.970	6.470
U	-	0.050	-	1.270

Figure 1
Typical Forward Characteristics



Instantaneous Forward Current - Amperes
Instantaneous Forward Voltage - Volts

Figure 2
Typical Reverse Characteristics

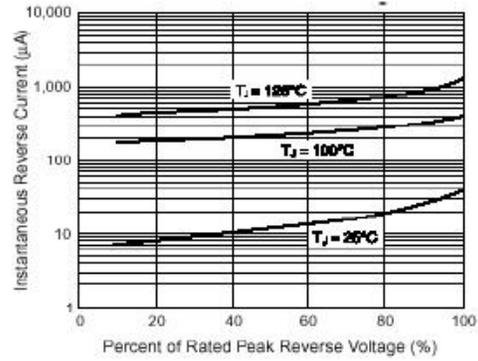
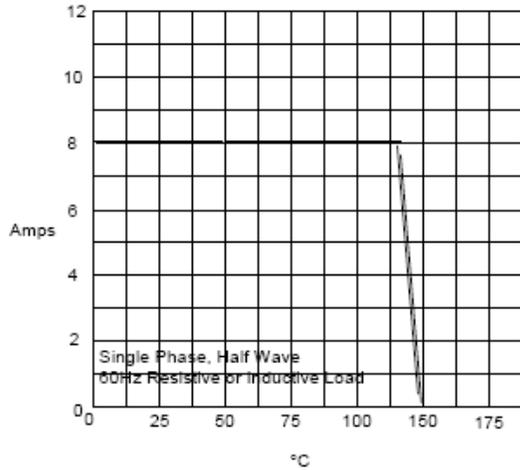
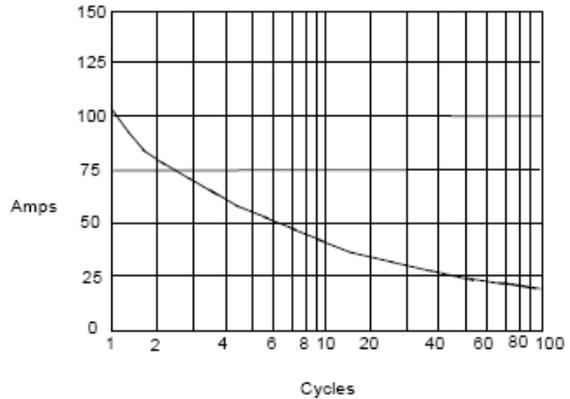


Figure 3
Forward Derating Curve



Average Forward Rectified Current - Amperes
Ambient Temperature - °C

Figure 4
Maximum Non-Repetitive Forward Surge Current



Peak Forward Surge Current - Amperes
Number Of Cycles At 60Hz - Cycles