DIGITRON SEMICONDUCTORS

MURH805CT-MURH860CT 8A ULTRA FAST RECOVERY RECTIFIER

MAXIMUM RATINGS

Rating	Symbol	MURH					Unit
		805CT	810CT	820CT	840CT	860CT	
Peak repetitive reverse voltage	V_{RRM}	50	100	200	400	600	
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	V
DC blocking voltage	V_R	50	100	200	400	600	
Average forward current (Rated V_R)	$I_{F(AV)}$	8 @ T_C = 120°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					°C

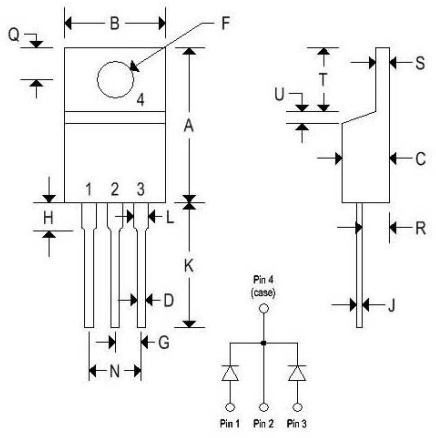
ELECTRICAL CHARACTERISTICS (@ 25°C unless otherwise noted)

Parameter	Symbol	MURH					Unit
		805CT	810CT	820CT	840CT	860CT	
Maximum instantaneous forward voltage(1) (I_F = 4A, T_J = 25°C)	V_F	2.2				2.8	V
Maximum DC reverse current (1) (Rated dc voltage, T_J = 25°C) (Rated dc voltage, T_J = 100°C)	I_R	10 800					µA
Maximum reverse recovery time (I_F = 1A, di/dt = 50A/µs)	t_{rr}	35			50		ns

Note 1: Pulse test: Pulse width = 300µs, duty cycle = 2.0%.

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

Available Non-RoHS (standard) or RoHS compliant (add PBF suffix).
Available as "HR" (high reliability) screened per MIL-PRF-19500, JANTX level. Add "HR" suffix to base part number.

144 Market Street
Kenilworth NJ 07033 USA

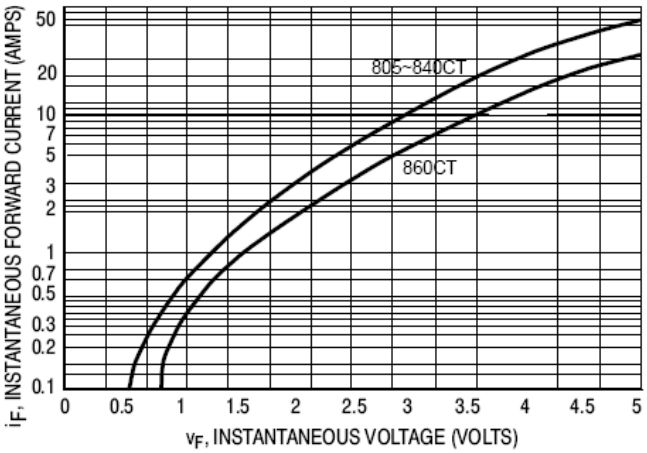
phone +1.908.245-7200
fax +1.908.245-0555

sales@digitroncorp.com
www.digitroncorp.com

D I G I T R O N S E M I C O N D U C T O R S

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Figure 1
Typical Forward Characteristics



Instantaneous Forward Current - Amperes*versus*
Instantaneous Forward Voltage - Volts

Figure 2
Typical Reverse Characteristics

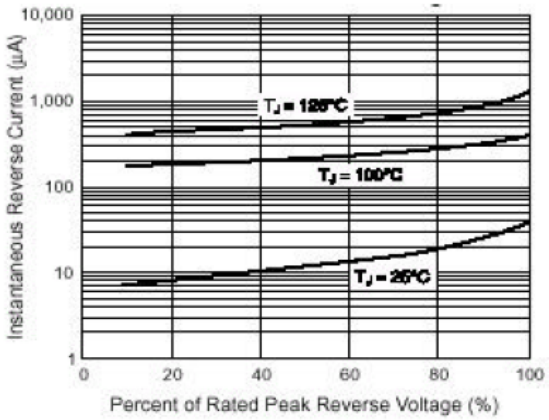
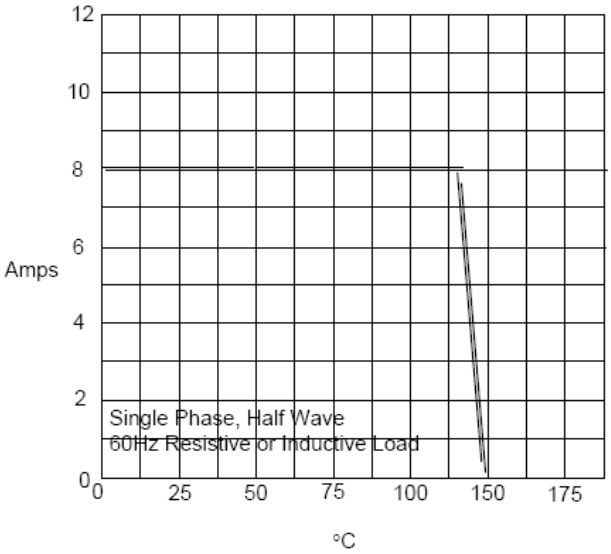
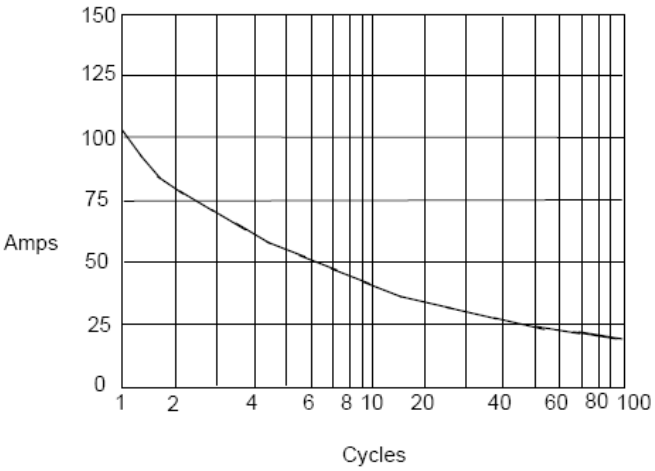


Figure 3
Forward Derating Curve



Average Forward Rectified Current - Amperes*versus*
Ambient Temperature -°C

Figure 4
Maximum Non-Repetitive Forward Surge Current



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

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