

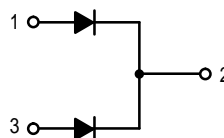
*Product Preview***SWITCHMODE™ Power Rectifier**

... designed for use in switching power supplies, inverters and as free wheeling diodes, these state-of-the-art devices have the following features:

- Ultrafast 35 Nanosecond Recovery Times
- 175°C Operating Junction Temperature
- Electrically Isolated. No Isolation Hardware Required.
- Epoxy Meets UL94,  $V_0$  @ 1/8"
- High Temperature Glass Passivated Junction
- High Voltage Capability to 600 Volts
- Low Leakage Specified @ 150°C Case Temperature

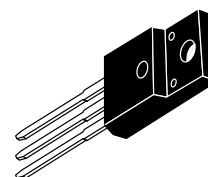
**Mechanical Characteristics**

- Case: Epoxy, Molded
- Weight: 1.9 grams (approximately)
- Finish: All External Surfaces Corrosion Resistant and Terminal Leads are Readily Solderable
- Lead Temperature for Soldering Purposes: 260°C Max. for 10 Seconds
- Shipped 50 units per plastic tube
- Marking: UH860

**MURHF860CT**

Motorola Preferred Device

**ULTRAFAST RECTIFIER**  
**8.0 AMPERES**  
**600 VOLTS**



**CASE 221D-02**  
**ISOLATED TO-220**

**MAXIMUM RATINGS, PER LEG**

Rating	Symbol	Value	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	$V_{RRM}$ $V_{RWM}$ $V_R$	600	Volts
Average Rectified Forward Current Total Device, (Rated $V_R$ ), $T_C = 120^\circ\text{C}$	$I_F(AV)$	4.0 8.0	Amps
Peak Repetitive Forward Current (Rated $V_R$ , Square Wave, 20 kHz), $T_C = 120^\circ\text{C}$	$I_{FM}$	16	Amps
Nonrepetitive Peak Surge Current (Surge applied at rated load conditions halfwave, single phase, 60 Hz)	$I_{FSM}$	100	Amps
Operating Junction Temperature and Storage Temperature	$T_J, T_{stg}$	-65 to +150	$^\circ\text{C}$

**THERMAL CHARACTERISTICS, PER LEG**

Maximum Thermal Resistance, Junction to Case	$R_{\theta JC}$	4.1	$^\circ\text{C/W}$
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**ELECTRICAL CHARACTERISTICS, PER LEG**

Maximum Instantaneous Forward Voltage (1) ( $I_F = 4.0$ Amps, $T_C = 150^\circ\text{C}$ ) ( $I_F = 4.0$ Amps, $T_C = 25^\circ\text{C}$ )	$V_F$	2.5 2.8	Volts
Maximum Instantaneous Reverse Current (1) (Rated dc Voltage, $T_C = 150^\circ\text{C}$ ) (Rated dc Voltage, $T_C = 25^\circ\text{C}$ )	$i_R$	500 10	$\mu\text{A}$
Maximum Reverse Recovery Time ( $I_F = 1.0$ Amp, $di/dt = 50$ Amps/ $\mu\text{s}$ )	$t_{rr}$	35	ns

(1) Pulse Test: Pulse Width = 300  $\mu\text{s}$ , Duty Cycle  $\leq 2.0\%$

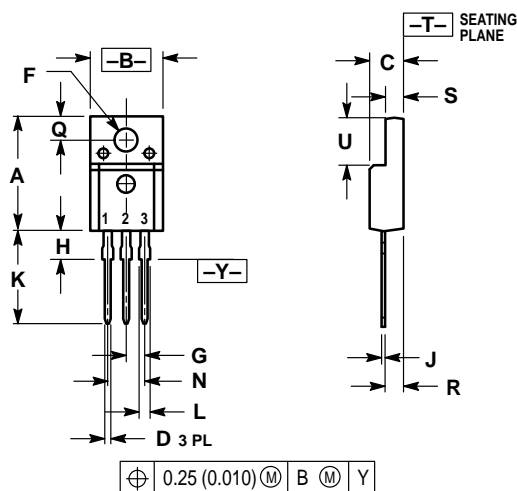
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**Preferred** devices are Motorola recommended choices for future use and best overall value.

This document contains information on a product under development. Motorola reserves the right to change or discontinue this product without notice.



## PACKAGE DIMENSIONS



## NOTES:


1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: INCH.

DIM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.621	0.629	15.78	15.97
B	0.394	0.402	10.01	10.21
C	0.181	0.189	4.60	4.80
D	0.026	0.034	0.67	0.86
F	0.121	0.129	3.08	3.27
G	0.100	BSC	2.54	BSC
H	0.123	0.129	3.13	3.27
J	0.018	0.025	0.46	0.64
K	0.500	0.562	12.70	14.27
L	0.045	0.060	1.14	1.52
N	0.200	BSC	5.08	BSC
Q	0.126	0.134	3.21	3.40
R	0.107	0.111	2.72	2.81
S	0.096	0.104	2.44	2.64
U	0.259	0.267	6.58	6.78

## STYLE 4:

- PIN 1. CATHODE
- ANODE
- CATHODE

CASE 221D-02  
ISSUE D

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## How to reach us:

**USA/EUROPE/Locations Not Listed:** Motorola Literature Distribution;  
P.O. Box 5405, Denver, Colorado 80217. 1-303-675-2140 or 1-800-441-2447

**JAPAN:** Nippon Motorola Ltd.: SPD, Strategic Planning Office, 141,  
4-32-1 Nishi-Gotanda, Shagawa-ku, Tokyo, Japan. 03-5487-8488

**Customer Focus Center: 1-800-521-6274**

**Mfax™:** RMFAX0@email.sps.mot.com – TOUCHTONE 1-602-244-6609  
Motorola Fax Back System – US & Canada ONLY 1-800-774-1848  
– http://sps.motorola.com/mfax/

**ASIA/PACIFIC:** Motorola Semiconductors H.K. Ltd.; 8B Tai Ping Industrial Park,  
51 Ting Kok Road, Tai Po, N.T., Hong Kong. 852-26629298

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**MOTOROLA**

MURHF860CT/D