MUR6040

Preferred Device

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 100 Nanosecond Recovery Time
- 175°C Operating Junction Temperature
- High Voltage Capability to 400 Volts
- Low Forward Voltage Drop
- High Temperature Glass Passivated Junction

Mechanical Characteristics:

- Case: Epoxy, Molded
- Weight: 4.3 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 30 Units Per Plastic Tube
- Marking: U6040

MAXIMUM RATINGS

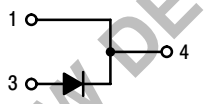
Rating	Symbol	Max	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	400	V
Average Rectified Forward Current T_C = 70°C	$I_{F(AV)}$	60	A
Peak Repetitive Forward Current (Rated V_R, Square Wave, 20 kHz, T_C = 150°C)	I_{FRM}	60	A
Non–Repetitive Peak Surge Current (Surge Applied at Rated Load Conditions Halfwave, Single Phase, 60 Hz)	I_{FSM}	600	A
Operating Junction and Storage Temperature Range	T_J, T_{stg}	–65 to +175	°C

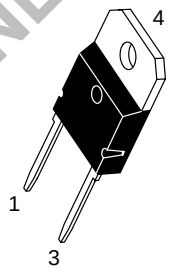
ARCHIVE
DEVICE NOT RECOMMENDED FOR NEW DESIGN

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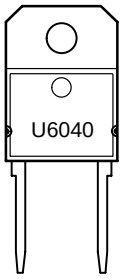
ULTRAFAST RECTIFIER 60 AMPERES 400 VOLTS





TO–218
CASE 340E
STYLE 1

MARKING DIAGRAM



U6040 = Device Code

ORDERING INFORMATION

Device	Package	Shipping
MUR6040	TO–218	30 Units/Rail

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

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THERMAL CHARACTERISTICS

Rating	Symbol	Max	Unit
Thermal Resistance, Junction to Case	$R_{\theta JC}$	0.8	°C/W

ELECTRICAL CHARACTERISTICS

Instantaneous Forward Voltage (Note 1.) @ I_F = 60 Amps, T_C = 100°C @ I_F = 60 Amps, T_C = 25°C	V_F	 1.4 1.5	Volts
Instantaneous Reverse Current (Note 1.) @ Rated dc Voltage, T_C = 100°C @ Rated dc Voltage, T_C = 25°C	I_R	 10 60	 mA μA
Reverse Recovery Time I_F = 1.0 Amp, dI/dt = 15 Amp/μs	t_{RR}	100	ns

1. Pulse Test: Pulse Width = 300 μs, Duty Cycle ≤ 2.0%

TYPICAL ELECTRICAL CHARACTERISTICS

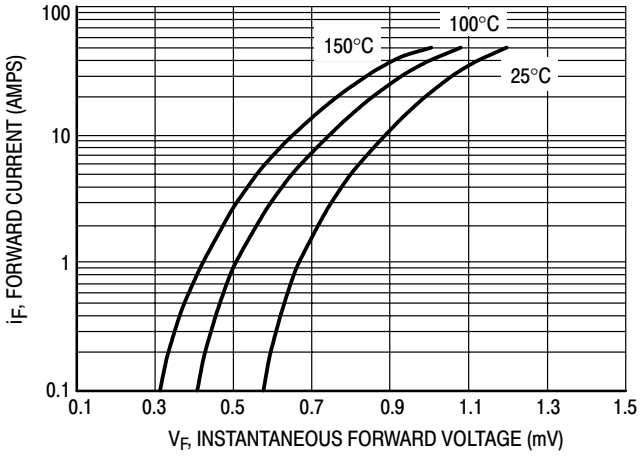


Figure 1. Typical Forward Voltage

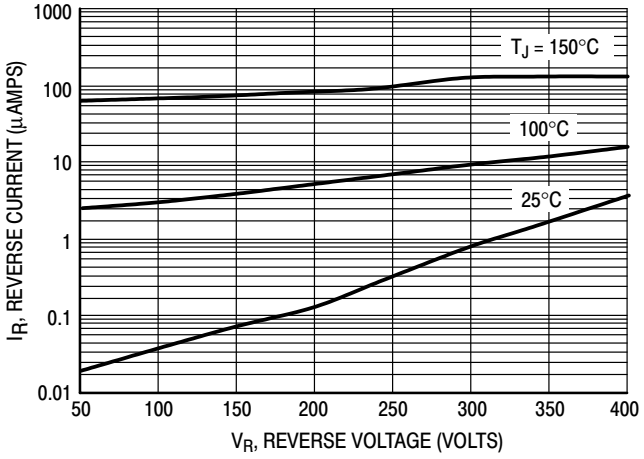


Figure 2. Typical Reverse Current

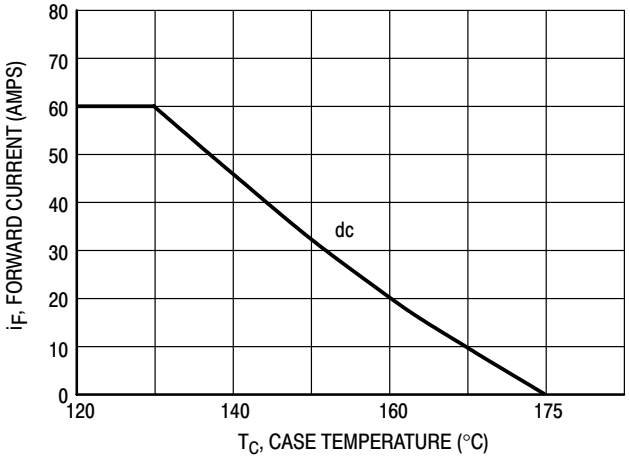


Figure 3. Current Derating, Case

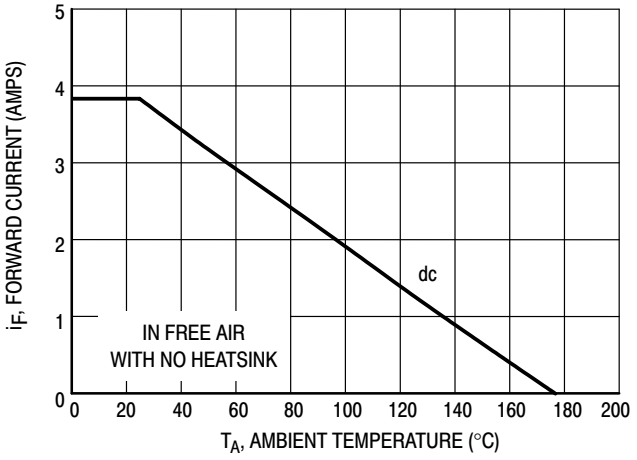
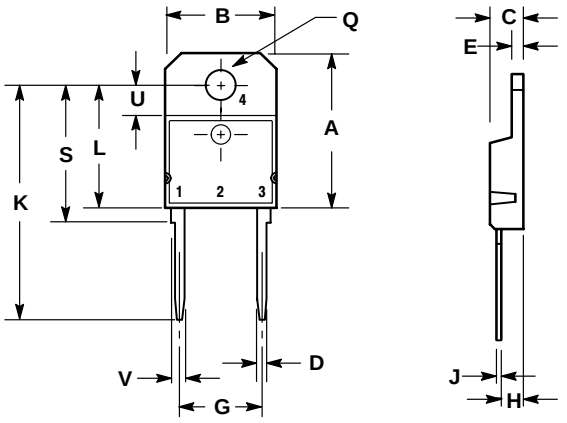


Figure 4. Current Derating, Ambient

PACKAGE DIMENSIONS

TO–218 TWO LEAD
TO–218
CASE 340E–02
ISSUE A



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

	MILLIMETERS		INCHES	
DIM	MIN	MAX	MIN	MAX
A	---	20.35	---	0.801
B	14.70	15.20	0.579	0.598
C	4.70	4.90	0.185	0.193
D	1.10	1.30	0.043	0.051
E	1.17	1.37	0.046	0.054
G	10.80	11.10	0.425	0.437
H	2.00	3.00	0.079	0.118
J	0.50	0.78	0.020	0.031
K	31.00 REF		1.220 REF	
L	---	16.20	---	0.638
Q	4.00	4.10	0.158	0.161
S	17.80	18.20	0.701	0.717
U	4.00 REF		0.157 REF	
V	1.75 REF		0.069	

STYLE 1:
PIN 1. CATHODE
3. ANODE
4. CATHODE

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