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MUR3080

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 75 ns (Typ) Soft Recovery Time
- 175°C Operating Junction Temperature
- High Voltage Capability to 800 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: U3080

MAXIMUM RATINGS

Rating	Symbol	Max	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	800	V
Average Rectified Forward Current (Rated V_R, T_C = 70°C)	$I_{F(AV)}$	30	A
Peak Repetitive Forward Current (Rated V_R, Square Wave, 20 kHz, T_C = 150°C)	I_{FRM}	30	A
Non–Repetitive Peak Surge Current (Surge Applied at Rated Load Conditions Halfwave, Single Phase, 60 Hz)	I_{FSM}	300	A
Operating Junction and Storage Temperature Range	T_J, T_{stg}	–65 to +175	°C

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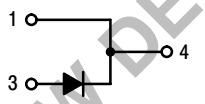
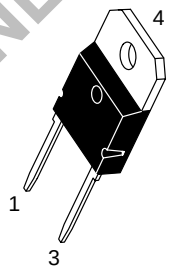
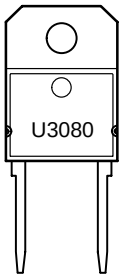
ULTRAFAST RECTIFIER 30 AMPERES 800 VOLTS





TO–218
CASE 340E
STYLE 1

MARKING DIAGRAM



U3080 = Device Code

ORDERING INFORMATION

Device	Package	Shipping
MUR3080	TO–218	30 Units/Rail

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

THERMAL CHARACTERISTICS

Rating	Symbol	Max	Unit
Thermal Resistance, Junction to Case	$R_{\theta JC}$	1.0	°C/W

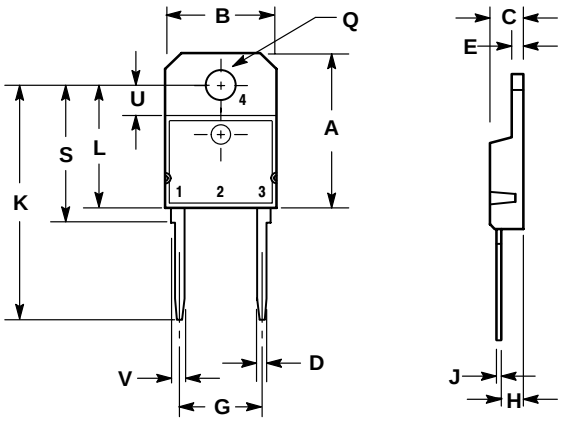
ELECTRICAL CHARACTERISTICS (Typical Data)

Instantaneous Forward Voltage (Note 1.) @ I_F = 30 Amps, T_C = 25°C @ I_F = 30 Amps, T_C = 100°C	V_F	 1.9 1.8	Volts
Instantaneous Reverse Current (Note 1.) @ Rated DC Voltage, T_C = 25°C @ Rated DC Voltage, T_C = 100°C	I_R	 100 5.0	 μA mA
Reverse Recovery Time I_F = 1.0 Amp, V_R = 30 V, dI/dt = 50 A/μs	t_{RR}	110	ns

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

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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PUBLICATION ORDERING INFORMATION

Literature Fulfillment:
Literature Distribution Center for ON Semiconductor
P.O. Box 5163, Denver, Colorado 80217 USA
Phone: 303–675–2175 or 800–344–3860 Toll Free USA/Canada
Fax: 303–675–2176 or 800–344–3867 Toll Free USA/Canada
Email: ONlit@hibbertco.com

N. American Technical Support: 800–282–9855 Toll Free USA/Canada

JAPAN: ON Semiconductor, Japan Customer Focus Center
4–32–1 Nishi–Gotanda, Shinagawa–ku, Tokyo, Japan 141–0031
Phone: 81–3–5740–2700
Email: r14525@onsemi.com

ON Semiconductor Website: http://onsemi.com

For additional information, please contact your local
Sales Representative.