SWITCHMODE[™] Power Rectifiers

These state-of-the-art devices are designed for use in switching power supplies, inverters and as free wheeling diodes.

Features

- Ultrafast 35 and 60 Nanosecond Recovery Time
- 175°C Operating Junction Temperature
- High Voltage Capability to 600 V
- Low Forward Drop
- Low Leakage Specified @ 150°C Case Temperature
- Current Derating Specified @ Both Case and Ambient Temperatures
- Epoxy Meets UL 94 V-0 @ 0.125 in
- High Temperature Glass Passivated Junction
- Pb–Free Packages are Available*

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



ON Semiconductor®

http://onsemi.com

ULTRAFAST RECTIFIERS 30 AMPERES, 200–600 VOLTS







ORDERING INFORMATION

Device	Package	Shipping
MUR3020PT	SOT-93	30 Units/Rail
MUR3020PTG	SOT-93 (Pb-Free)	30 Units/Rail
MUR3040PT	SOT-93	30 Units/Rail
MUR3040PTG	SOT-93 (Pb-Free)	30 Units/Rail
MUR3060PT	SOT-93	30 Units/Rail
MUR3060PTG	SOT-93 (Pb-Free)	30 Units/Rail

*For additional information on our Pb-Free strategy and soldering details, please download the ON Semiconductor Soldering and Mounting Techniques Reference Manual, SOLDERRM/D.

MAXIMUM RATING P. Con 相応商							
Rating	Symbol	MUR3020PT	MUR3040PT	MUR3060PT	Unit		
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V _{RRM} V _{RWM} V _R	200	400	600	V		
Average Rectified Forward Current (Rated V _R) Per Leg Per Device	I _{F(AV)}	15 @ T _C 30 @ T _C	= 150°C = 150°C	15 @ T _C = 145°C 30 @ T _C = 145°C	A		
Peak Rectified Forward Current, Per Leg (Rated V_R , Square Wave, 20 kHz)	I _{FRM}	$30 @ T_{C} = 150^{\circ}C$ $30 @ T_{C} = 145^{\circ}C$		А			
Nonrepetitive Peak Surge Current (Surge applied at rated load conditions, halfwave, single phase, 60 Hz) Per Leg	I _{FSM}	200		А			
Operating Junction and Storage Temperature	T _J , T _{stg}	– 65 to +175			°C		
THERMAL CHARACTERISTICS (Per Diode Leg)							
Maximum Thermal Resistance, – Junction-to-Case – Junction-to-Ambient	R _{θJC} R _{θJA}	1.5 40			°C/W		
ELECTRICAL CHARACTERISTICS (Per Diode Leg)							
$\label{eq:linear} \begin{array}{ l l l l l l l l l l l l l l l l l l l$	V _F	0.85 1.05	1.12 1.25	1.2 1.5	V		
Maximum Instantaneous Reverse Current (Note 1) (Rated DC Voltage, $T_J = 150^{\circ}C$) (Rated DC Voltage, $T_J = 25^{\circ}C$)	İR	500 1000 10 10		1000 10	μΑ		
Maximum Reverse Recovery Time (i _F = 1.0 A, di/dt = 50 A/μs)	t _{rr}	35		60	ns		

Maximum ratings are those values beyond which device damage can occur. Maximum ratings applied to the device are individual stress limit values (not normal operating conditions) and are not valid simultaneously. If these limits are exceeded, device functional operation is not implied, damage may occur and reliability may be affected.

1. Pulse Test: Pulse Width = 300 μ s, Duty Cycle \leq 2.0%.

MUR3020PT



查询"MUR3020PT-D"供应商

MUR3040PT



MUR3060PT





Figure 16. Thermal Response



Figure 17. Typical Capacitance (Per Leg)

查询"MUR3020PT-D"供应商

PACKAGE DIMENSIONS

SOT-93 (TO-218) CASE 340D-02 ISSUE E



NOTES:

1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.

2. CONTROLLING DIMENSION: MILLIMETER.

	MILLIN	IETERS	INCHES		
DIM	MIN	MAX	MIN	MAX	
Α		20.35		0.801	
В	14.70	15.20	0.579	0.598	
С	4.70	4.90	0.185	0.193	
D	1.10	1.30	0.043	0.051	
Е	1.17	1.37	0.046	0.054	
G	5.40	5.55	0.213	0.219	
Н	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 2: PIN 1. ANODE 1

2. CATHODE(S) 3. ANODE 2 4. CATHODE(S)

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