

Ultrafast Rectifier

MUR30120PT

FEATURES

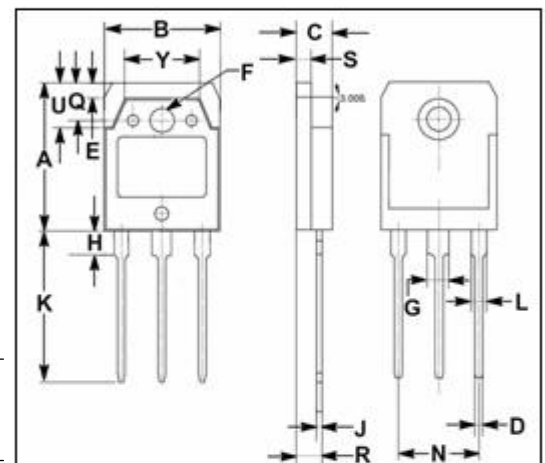
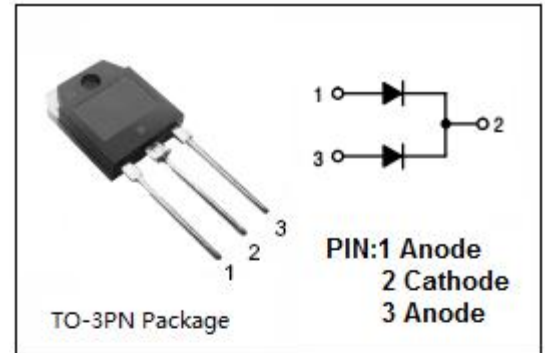
- Guarding for over voltage protection
- Dual rectifier construction, positive center tap
- Metal of silicon rectifier, majority carrier conduction
- Low forward voltage, high efficiency
- 100% tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Switching power supply
- Rectifier in switch mode supplies

ABSOLUTE MAXIMUM RATINGS($T_a=25^{\circ}\text{C}$)

SYMBOL	PARAMETER	VALUE	UNIT
V_{RRM} V_{RWM} V_R	Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	1200	V
$I_{F(AV)}$	Average Rectified Forward Current	30	A
I_{FSM}	Nonrepetitive Peak Surge Current (Surge applied at rated load conditions half-wave, single phase, 60Hz)	150	A
P_D	Maximum power dissipation	78	W
T_J	Junction Temperature	-40~150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature Range	-40~150	$^{\circ}\text{C}$



DIM	mm	
	MIN	MAX
A	19.60	20.30
B	15.50	15.70
C	4.70	4.90
D	0.90	1.10
E	1.90	2.10
F	3.40	3.60
G	2.90	3.20
H	3.20	3.40
J	0.595	0.605
K	19.80	20.70
L	1.90	2.20
N	10.89	10.91
Q	4.90	5.10
R	3.35	3.45
S	1.995	2.100
U	5.90	6.20
Y	9.90	10.10

Fast Recovery Rectifier**MUR30120PT****THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
R_{thj-c}	Thermal Resistance, Junction to Case	1.6	°C/W

ELECTRICAL CHARACTERISTICS ($T_a=25^{\circ}\text{C}$) (Pulse Test: Pulse Width=300 μ s, Duty Cycle \leq 2%)

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V_F	Maximum Instantaneous Forward Voltage	$I_F=15\text{A}; T_j=150^{\circ}\text{C}$ $I_F=15\text{A}; T_j=25^{\circ}\text{C}$	2.6 2.2	V
I_R	Maximum Instantaneous Reverse Current	$V_R=V_{RWM}; T_j=25^{\circ}\text{C}$ $V_R=0.8V_{RWM}; T_j=25^{\circ}\text{C}$ $V_R=0.8V_{RWM}; T_j=125^{\circ}\text{C}$	250 150 4000	μ A
t_{rr}	Maximum Reverse Recovery Time	$I_F=1\text{A};$	70	ns

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