

Ultrafast Recovery Rectifier

MUR30120

FEATURES

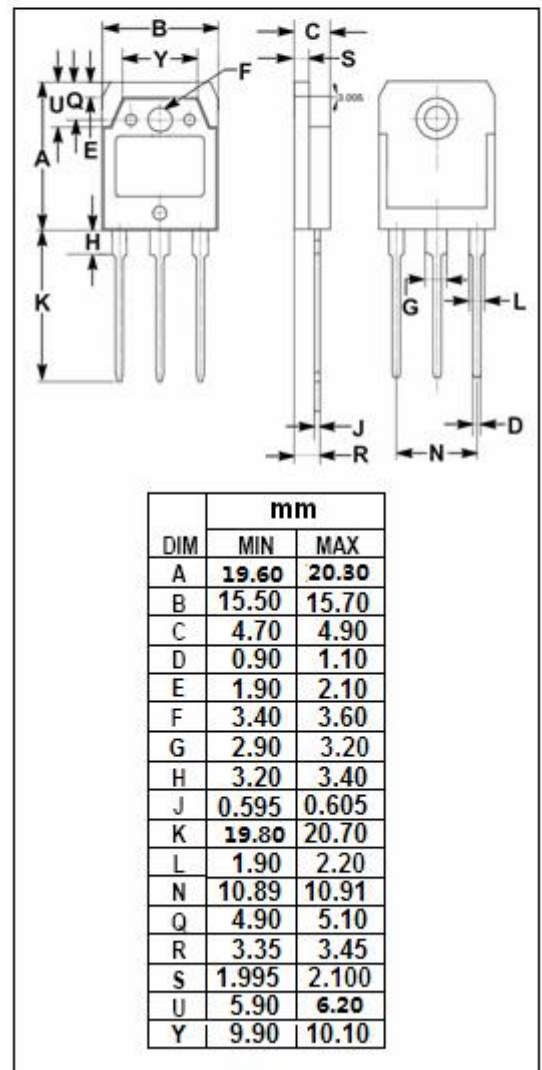
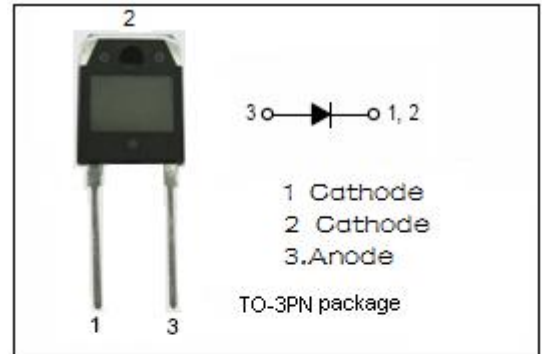
- Ultrafast Recovery Time
- Low Forward Voltage
- Low Leakage Current
- 150°C Operating Junction Temperature
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for use in switching power supplies, inverters and as free wheeling diodes.

ABSOLUTE MAXIMUM RATINGS(T_a=25°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 (Rated V _R)	30	A
I _{FRM}	Peak Repetitive Forward Current (Rated V _R , Square Wave, 20kHz)	30	A
I _{FSM}	Nonrepetitive Peak Surge Current (Surge applied at rated load conditions half-wave, single phase, 60Hz)	300	A
T _J	Junction Temperature	-55~150	°C
T _{stg}	Storage Temperature Range	-55~150	°C



Ultrafast Recovery Rectifier**MUR30120****THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	0.9	°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	$I_F=30\text{A}$	2.55	V
I_R	Maximum Instantaneous Reverse Current	$V_{RRM}=1200\text{V}$	10	μA
t_{rr}	Maximum Reverse Recovery Time	$I_F=20\text{A}$, $di/dt=200\text{A}/\mu\text{s}$, $V_{CC}=150\text{V}$	500	ns

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