Ultrafast Recovery Rectifier   **MUR3040**

FEATURES
· Ultrafast Recovery Time
· Low Forward Voltage
· Low Leakage Current
· 175℃ Operating Junction Temperature
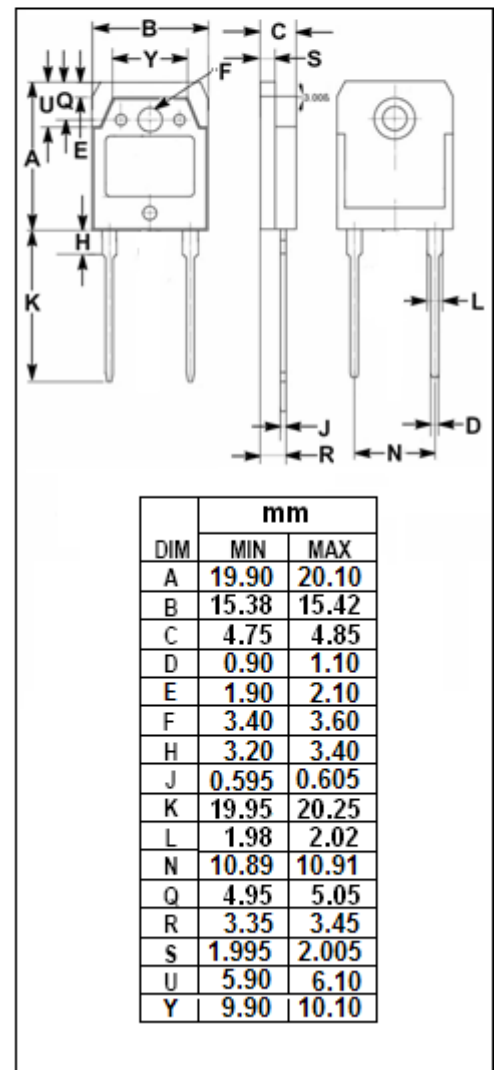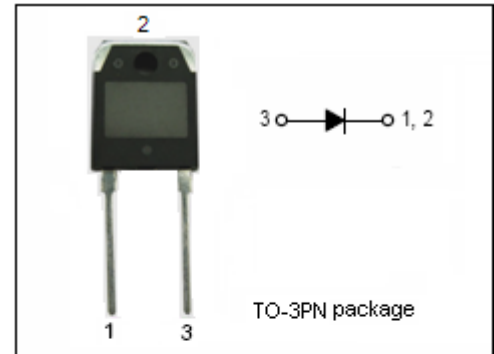· High Temperature Glass Passivated Junction

MECHANICAL CHARACTERISTICS
· Case: Epoxy, Molded
· Finish: All External Surfaces Corrosion Resistant and
  Terminal Leads are Readily Solderable
· Lead Temperature for Soldering Purposes: 260℃ Max.
  for 10 Seconds

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

ABSOLUTE MAXIMUM RATINGS(T$_a$=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V$_{RRM}$ V$_{RWM}$ V$_R$	Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	400	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	-65~175	℃
T$_{stg}$	Storage Temperature Range	-65~175	℃

TO-3PN package

DIM	mm	
	MIN	MAX
A	19.90	20.10
B	15.38	15.42
C	4.75	4.85
D	0.90	1.10
E	1.90	2.10
F	3.40	3.60
H	3.20	3.40
J	0.595	0.605
K	19.95	20.25
L	1.98	2.02
N	10.89	10.91
Q	4.95	5.05
R	3.35	3.45
S	1.995	2.005
U	5.90	6.10
Y	9.90	10.10

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MUR3040

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\,j\text{-}c}$	Thermal Resistance,Junction to Case	1.0	℃/W

ELECTRICAL CHARACTERISTICS(T_a=25℃) (Pulse Test: Pulse Width=300μs,Duty Cycle≤2%)

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V_F	Maximum Instantaneous Forward Voltage	I_F= 30A	1.68	V
I_R	Maximum Instantaneous Reverse Current	V_{RRM}= 400V	20	μA
t_{rr}	Maximum Reverse Recovery Time	I_F= 0.5A, I_R= 1A, I_{rr}= 0.25A	60	ns