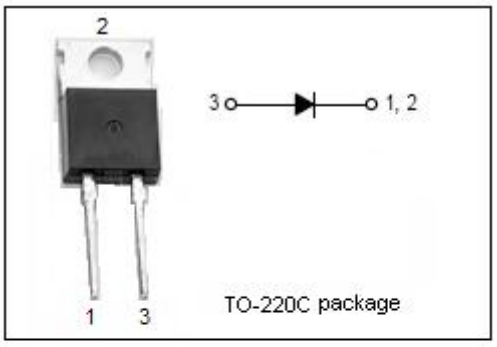
Ultrafast Recovery Rectifier

MUR8100E

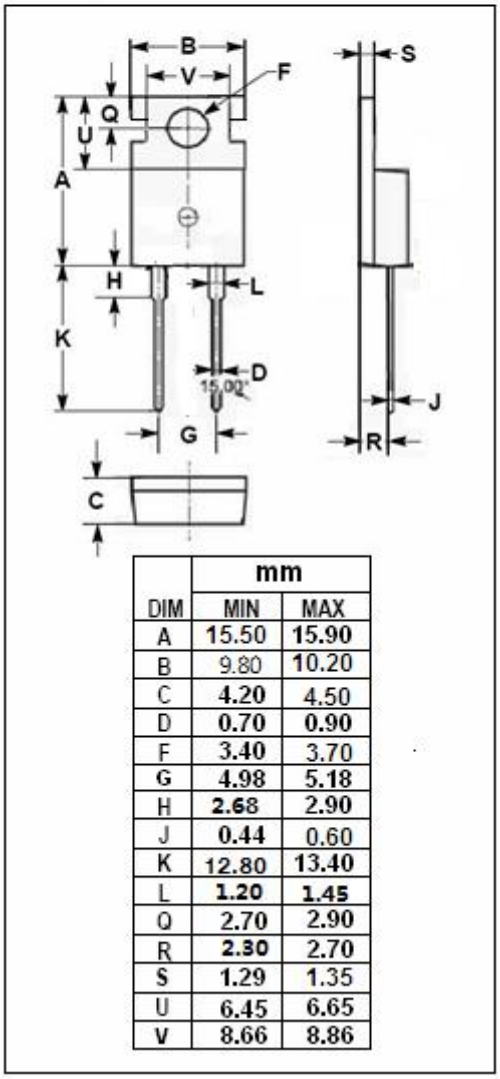


FEATURES

- Ultrafast Recovery Time
- Low Forward Voltage
- Low Leakage Current
- 175℃ Operating Junction Temperature
- High Temperature Glass Passivated Junction
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for use in switching power supplies and other power Switching applications.



DIM	mm MIN	mm MAX
A	15.50	15.90
B	9.80	10.20
C	4.20	4.50
D	0.70	0.90
F	3.40	3.70
G	4.98	5.18
H	2.68	2.90
J	0.44	0.60
K	12.80	13.40
L	1.20	1.45
Q	2.70	2.90
R	2.30	2.70
S	1.29	1.35
U	6.45	6.65
V	8.66	8.86

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	1000	V
$I_{F(AV)}$	Average Rectified Forward Current (Rated V_R)	8	A
I_{FM}	Peak Repetitive Forward Current (Rated V_R,Square Wave,20kHz)	16	A
I_{FSM}	Nonrepetitive Peak Surge Current (Surge applied at rated load conditions half-wave, single phase, 60Hz)	100	A
T_J	Junction Temperature	-55~175	℃
T_{stg}	Storage Temperature Range	-55~175	℃

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THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance,Junction to Case	2.0	℃/W

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

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V_F	Maximum Instantaneous Forward Voltage	I_F= 8A	1.8	V
		I_F= 8A; T_C=150℃	1.5	V
I_R	Maximum Instantaneous Reverse Current	V_{RRM}= 1000V	100	μA
		V_{RRM}= 1000V;T_C=150℃	500	μA
t_{rr}	Maximum Reverse Recovery Time	I_F= 1A	85	ns