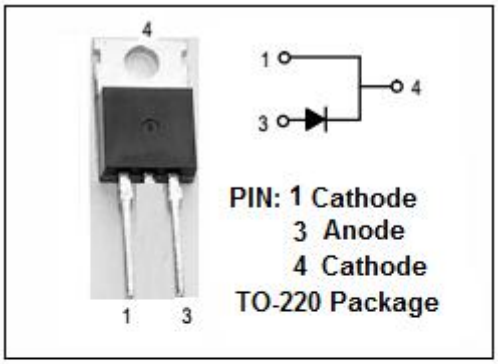
Ultrafast Rectifier

MUR20100

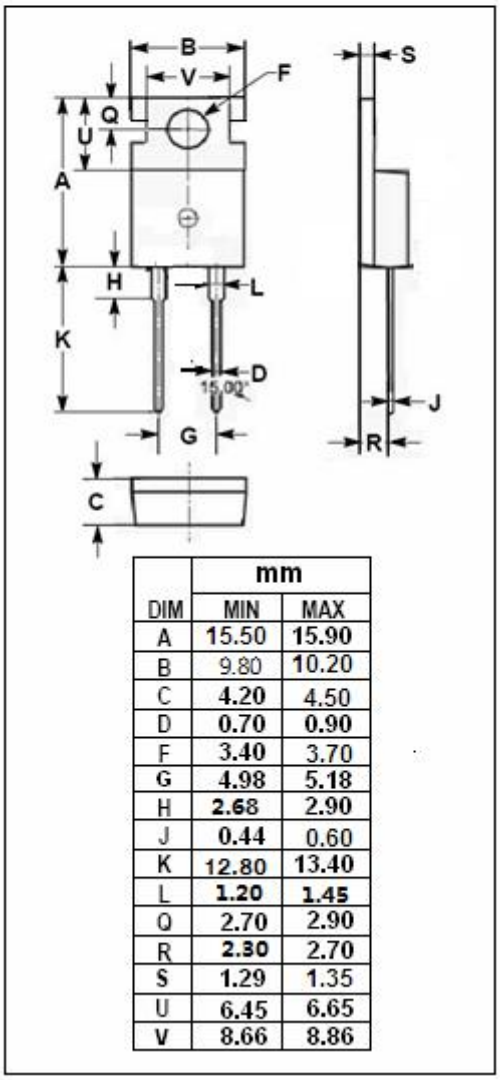


FEATURES

- 1000V blocking voltage
- Very short recovery time
- Soft recovery behaviour
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Antiparallel diode for high frequency switching devices
- Antisaturation diode
- Snubber diode
- Free wheeling diode in converters and motor control circuits



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		17	A
I_{FSM}	Nonrepetitive Peak Surge Current	T=45℃；t=10ms(50HZ)	130	A
		T=45℃；t=8.3ms(60HZ)	140	
		T=150℃；t=10ms(50HZ)	110	
		T=150℃；t=8.3ms(60HZ)	120	
T_J	Junction Temperature		-40~150	℃
T_{stg}	Storage Temperature Range		-40~150	℃

Fast Recovery Rectifier MUR20100

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance,Junction to Case	1.6	℃/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=12A ;Tj=25℃ I_F=12A ;Tj=150℃	2.15 1.87	V
I_{R*}	Maximum Instantaneous Reverse Current	V_R= 0.8V_{RWM};Tj=125℃ V_R= V_{RWM} V_R= 0.8V_{RWM}	7000 750 250	μA
t_{rr}	Maximum Reverse Recovery Time	IF =1A;di/dt = 100A/μs;VR=30V;	60	ns

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