

Ultra fast Rectifier

MURB2020CT

FEATURES

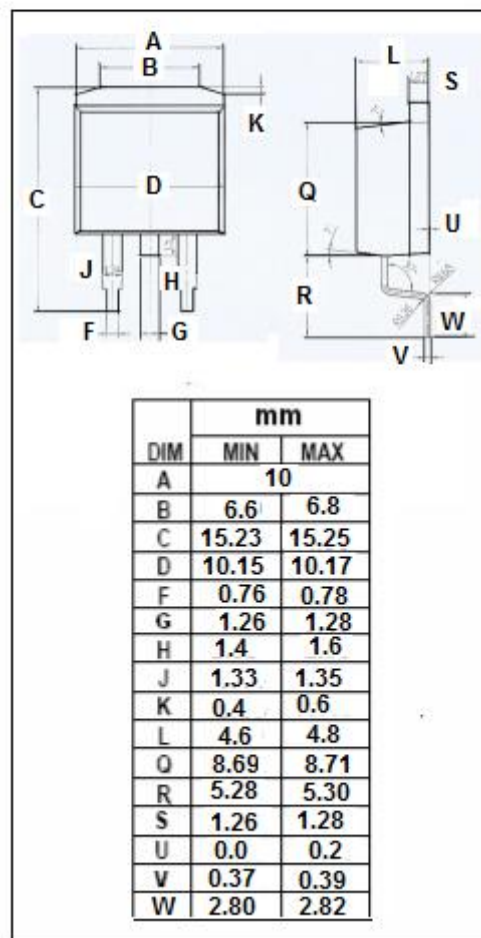
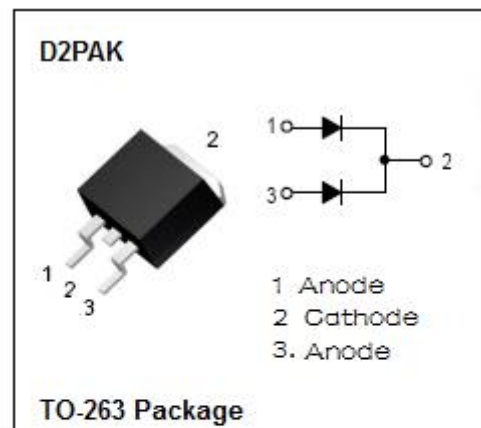
- Ultrafast with soft recovery
- 175°C Operating temperature
- Popular TO-220 package
- Ultrafast Recovery Time
- Low Forward Voltage Drop
- Low Leakage Current
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Switching power supply
- Power switching circuits
- General purpose

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	200	V
$I_{F(AV)}$	Average Rectified Forward Current Pre leg: Total device (Rated V_R , $T_C = 145^{\circ}\text{C}$):	10 20	A
I_{FSM}	Nonrepetitive Peak Surge Current (Surge applied at rated load conditions half-wave, single phase, 60Hz)	100	A
$I_{F(RSM)}$	RMS Forward Current per Leg $T_c=145^{\circ}\text{C}; 20\text{HZ};$	20	A
T_J	Junction Temperature	-65~175	$^{\circ}\text{C}$
T_{stg}	Storage Temperature Range	-65~175	$^{\circ}\text{C}$



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THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R_{thj-c}	Thermal Resistance, Junction to Case	2.5	°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	$I_F=8\text{A}; T_j=125^{\circ}\text{C}$ $I_F=16\text{A}; T_j=25^{\circ}\text{C}$ $I_F=16\text{A}; T_j=125^{\circ}\text{C}$	0.85 1.15 1.05	V
I_R	Maximum Instantaneous Reverse Current	$V_R=V_{RWM}; T_j=25^{\circ}\text{C}$ $V_R=V_{RWM}; T_j=150^{\circ}\text{C}$	15 250	μ A
t_{rr}	Maximum Reverse Recovery Time	$I_F=0.5\text{A}; I_R=1\text{A}; I_{REC}=0.25\text{A}$	25	ns

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