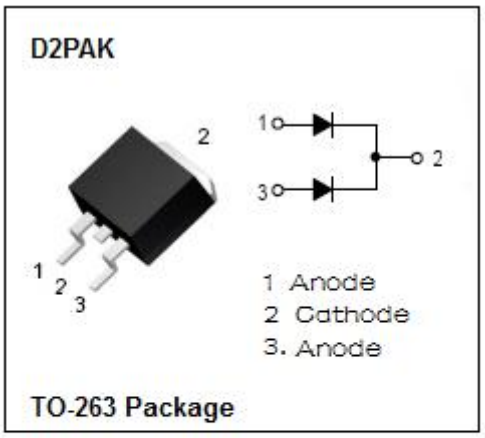
# Ultra fast Rectifier MURB2020CT

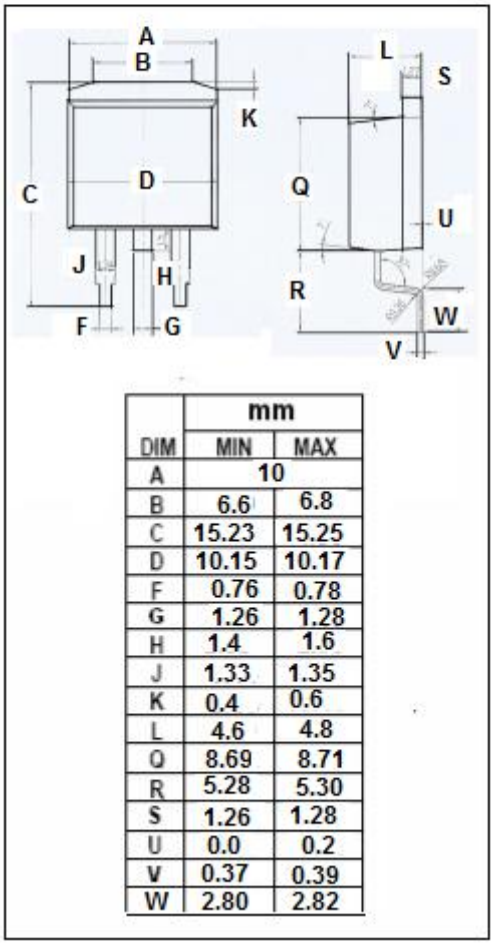
## FEATURES

- Ultrafast with soft recovery
- 175℃ 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




| DIM | mm MIN | MAX |
|---|---|---|
| A | 10 | |
| B | 6.6 | 6.8 |
| C | 15.23 | 15.25 |
| D | 10.15 | 10.17 |
| F | 0.76 | 0.78 |
| G | 1.26 | 1.28 |
| H | 1.4 | 1.6 |
| J | 1.33 | 1.35 |
| K | 0.4 | 0.6 |
| L | 4.6 | 4.8 |
| Q | 8.69 | 8.71 |
| R | 5.28 | 5.30 |
| S | 1.26 | 1.28 |
| U | 0.0 | 0.2 |
| V | 0.37 | 0.39 |
| W | 2.80 | 2.82 |

## ABSOLUTE MAXIMUM RATINGS($T_a$=25℃)

| SYMBOL | PARAMETER | VALUE | UNIT |
|---|---|---|---|
| $V_{RRM}$<br>$V_{RWM}$<br>$V_R$ | Peak Repetitive Reverse Voltage<br>Working Peak Reverse Voltage<br>DC Blocking Voltage | 200 | V |
| $I_{F(AV)}$ | Average Rectified Forward Current Pre leg:<br>Total device (Rated VR, TC = 145 °C): | 10<br>20 | A |
| $I_{FSM}$ | Nonrepetitive Peak Surge Current<br>(Surge applied at rated load conditions half-wave, single phase, 60Hz) | 100 | A |
| $I_{F(RSM)}$ | RMS Forward Current per Leg<br>Tc=145℃;20HZ; | 20 | A |
| $T_J$ | Junction Temperature | -65~175 | ℃ |
| $T_{stg}$ | Storage Temperature Range | -65~175 | ℃ |

## THERMAL CHARACTERISTICS

| SYMBOL | PARAMETER | MAX | UNIT |
|---|---|---|---|
| $R_{th\ j\text{-}c}$ | Thermal Resistance,Junction to Case | 2.5 | ℃/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 | $I_F$=8A ;Tj=125℃<br>$I_F$=16A ;Tj=25℃<br>$I_F$=16A ;Tj=125℃ | 0.85<br>1.15<br>1.05 | V |
| $I_R$ | Maximum Instantaneous Reverse Current | $V_R$= $V_{RWM;}$Tj=25℃<br>$V_R$= $V_{RWM;}$Tj=150℃ | 15<br>250 | μA |
| $t_{rr}$ | Maximum Reverse Recovery Time | $I_F$ =0.5A;$I_R$=1A;$I_{REC}$= 0.25A | 25 | ns |

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