# MUR3060

Rev.F Mar.-2016

蓝箭电子 BLUE ROCKET ELECTRONICS

**DATA SHEET**

## / Descriptions

TO-220AC

Ultrafast Recovery Diode in a TO-220AC Plastic Package.

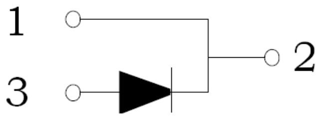
## / Features

Silicon epitaxial process to produce ultrafast recovery diode with low reverse leakage current and high reliability.

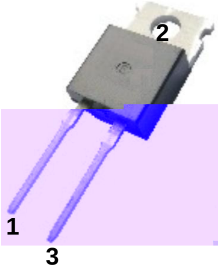
## / Applications

For high frequency, high voltage, high current rectifier diode, freewheeling diode.

## / Equivalent Circuit



## / Pinning



PIN1　2　Cathode　　　　PIN 3　Anode

## / $h_{FE}$ Classifications & Marking

See Marking Instructions

## / Absolute Maximum Ratings(Ta=25 )

| Parameter | Symbol | Rating | Unit |
|---|---|---|---|
| Peak Repetitive Reverse Voltage | $V_{RRM}$ | 600 | V |
| RMS Voltage | $V_{RMS}$ | 420 | V |
| DC Blocking Voltage | $V_{DC}$ | 600 | V |
| Maximum Average Forward Current | $I_F$ | 1 × 30 | A |
| Peak forward surge current | $I_{FSM}$ | 300 | A |
| Typical Thermal Resistance Junction to Case | $R_{\theta Jc}$ | 2.8 | /W |
| Junction Temperature Range | $T_j$ | 150 | |
| Storage Temperature Range | $T_{stg}$ | -55 150 | |

## / Electrical Characteristics(Ta=25 )

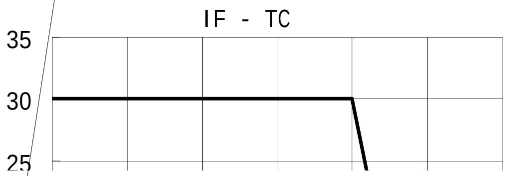
| Parameter | Symbol | Test Conditions | Min | Typ | Max | Unit |
|---|---|---|---|---|---|---|
| Forward Voltage | $V_F$ | $I_F$=5.0A $T_C$=25 | | | 1.35 | V |
| | | $I_F$=5.0A $T_C$=150 | | | 1.15 | |
| | | $I_F$=30A $T_C$=25 | | | 1.65 | |
| | | $I_F$=30A $T_C$=150 | | | 1.25 | |
| Instantaneous Reverse Current Note1 | $I_R$ | $V_R$=600V $T_a$=25 | | | 0.25 | mA |
| | | $V_R$=420V $T_a$=150 | | | 1 | |
| | | $V_R$=600V $T_a$=150 | | | 2 | |
| Reverse Recovery Time | $t_{rr}$ | $I_F$=0.5A $I_R$=1.0A<br>$I_{RR}$=0.25A | | | 50 | ns |

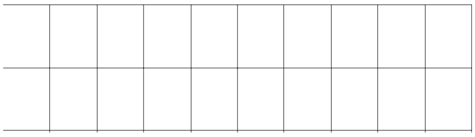
/Notes

1. /Short duration pulse test used to minimize self-heating effect.

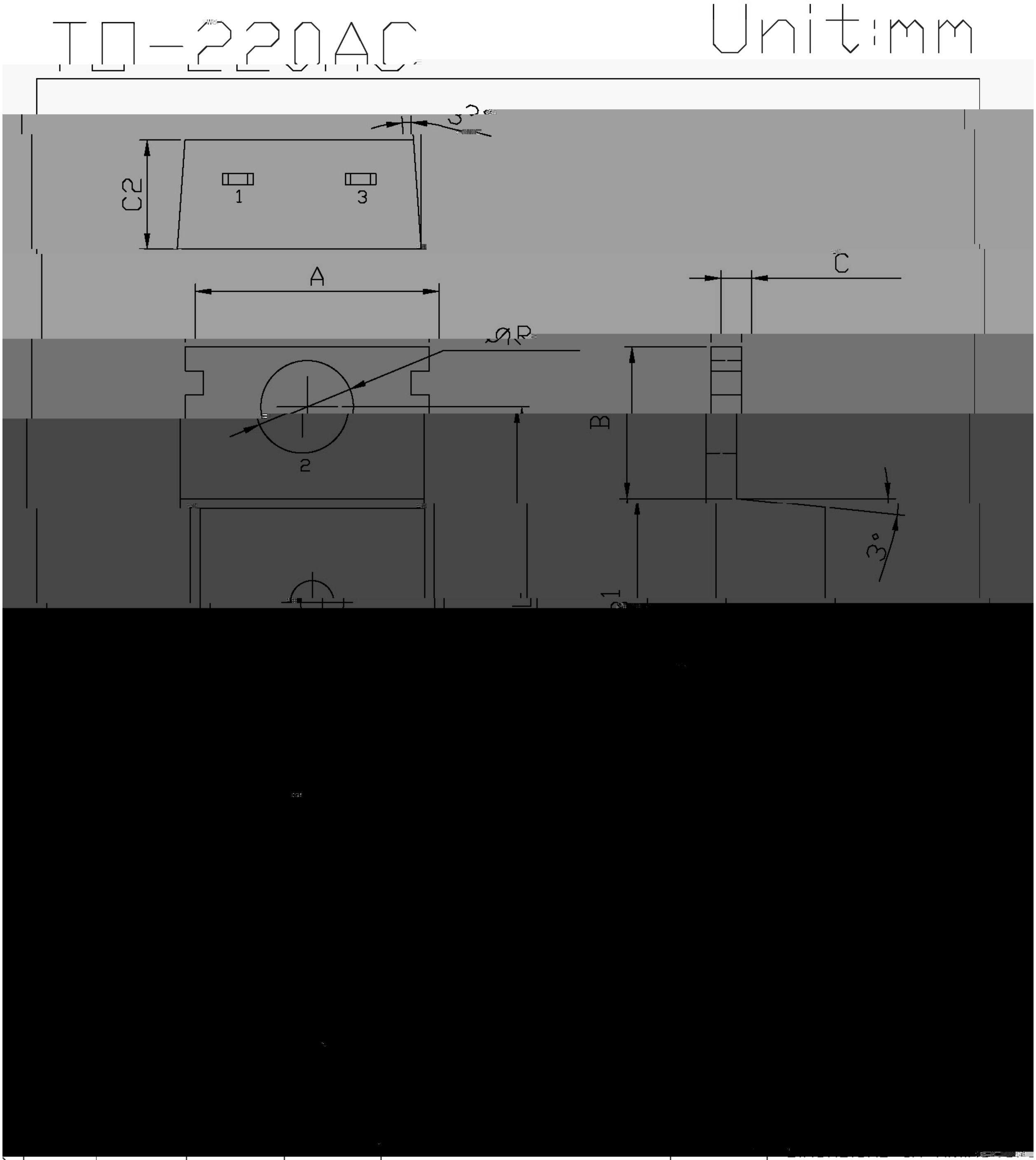
2. / Un5gss otherwise noted, values for the parameters of a single chip

## / Electrical Characteristic Curve



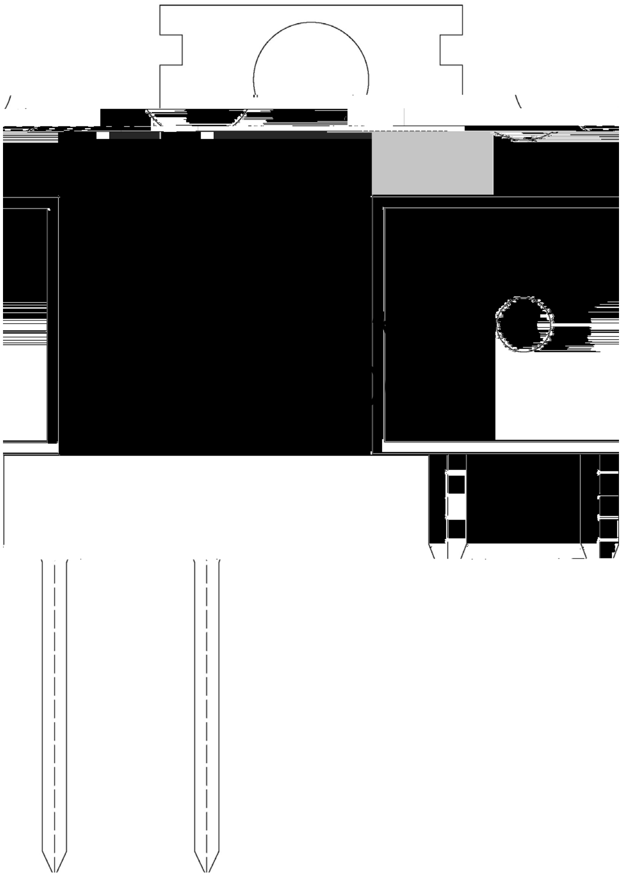


## / Package Dimensions



| Symbol | Min | Max | Symbol | Min | Max |
|---|---|---|---|---|---|
| A | 9.8 | 10.2 | B | 6.3 | 6.7 |
| R | 3.56 | 3.64 | B1 | 9.0 | 9.4 |
| [illegible] | 9.6 | 10.6 | C | 0.4 | 0.6 |
| [illegible] | 1.22 | 1.32 | C2 | 4.3 | 4.7 |
| b1 | 0.7 | 0.9 | | | |

## / Marking Instructions



BR

MUR3060

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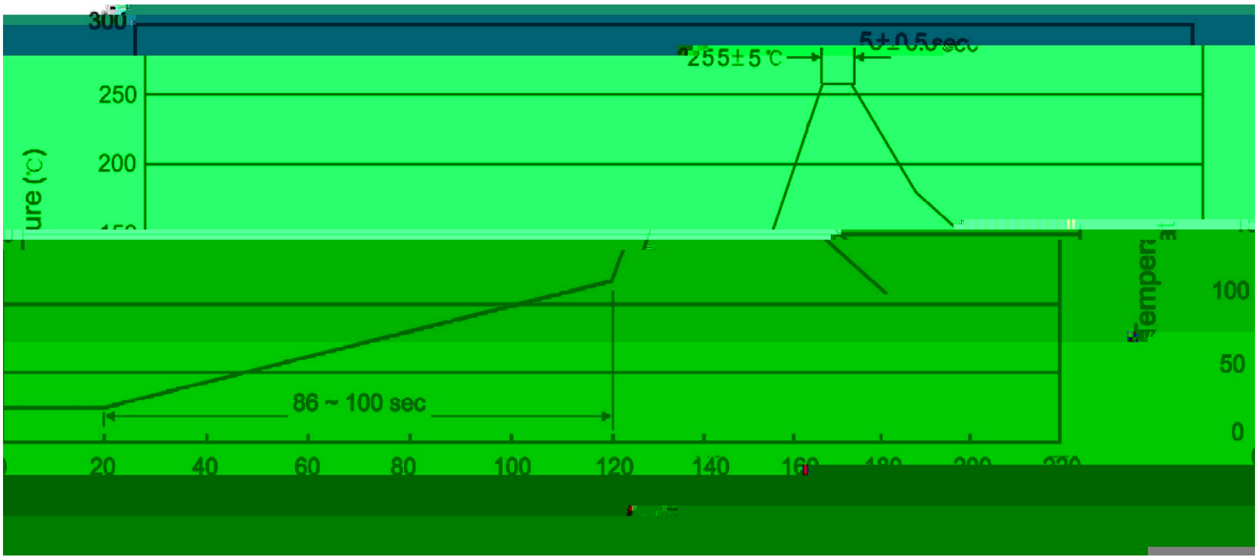
Note:

| | |
|---|---|
| BR: | Company Code |
| MUR3060 | Product Type. |
| ****: | Lot No. Code, code change with Lot No. |

## ( ) / Temperature Profile for Dip Soldering(Pb-Free)



Note:

1 25 150 60 90sec;
2 255±5 5±0.5sec;
3 2 10 /sec.

1.Preheating:25~150 , Time:60~90sec.
2.Peak Temp.:255±5 , Duration:5±0.5sec.
3. Cooling Speed: 2~10 /sec.

## / Resistance to Soldering Heat Test Conditions

270±5 10±1 sec.

Temp.:270±5 Time:10±1 sec

## / Packaging SPEC.

/ BULK

| Package Type | Units | | | Dimension (unit mm³) |
|---|---|---|---|---|
| | Units/Bag<br>/ | Bags/Inner Box<br>/ | Units/Inner Box<br>/ | |