

**/ Descriptions**

TO-220FAC

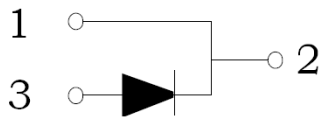
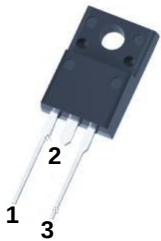
Ultrafast Recovery Diode in a TO-220FAC Plastic Package.

**/ 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

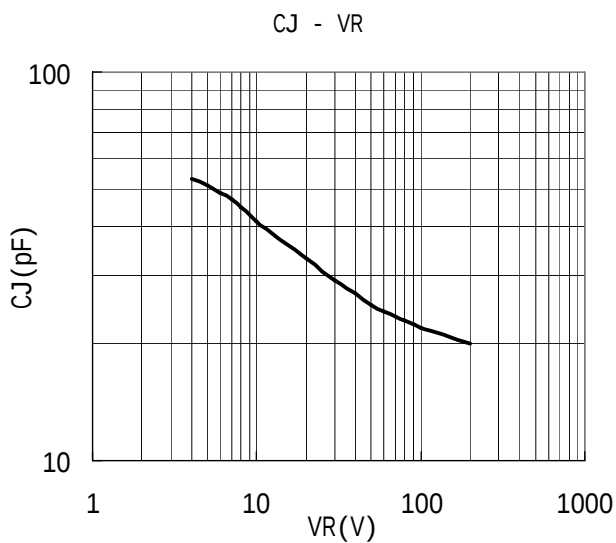
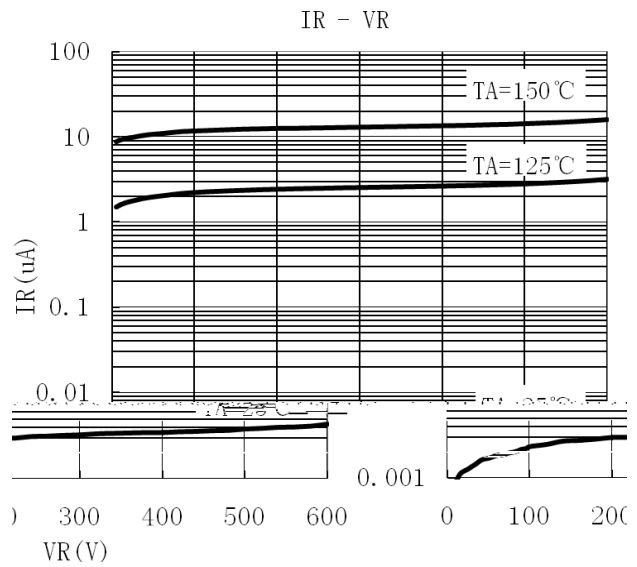
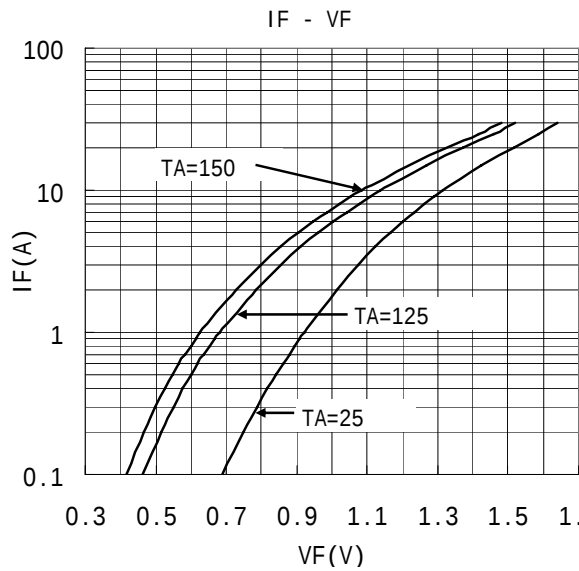
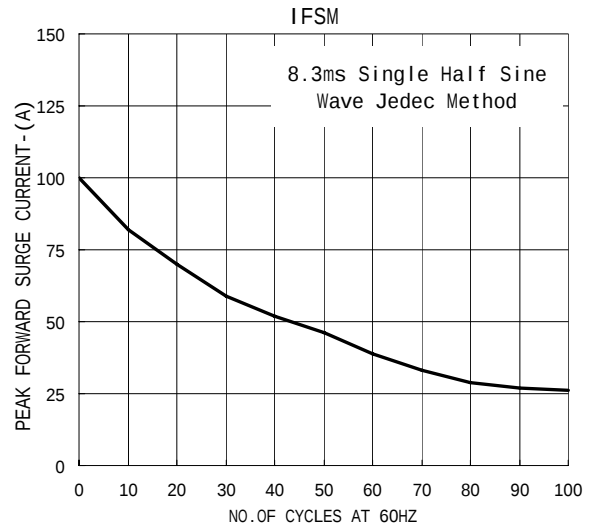
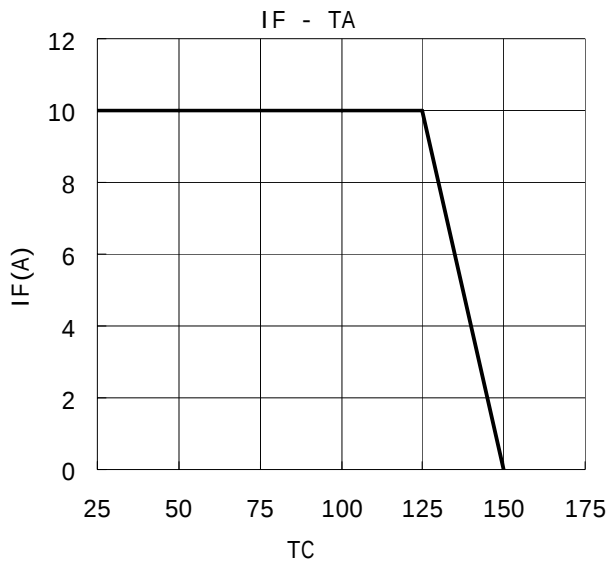
| Parameter                                   | Symbol          | Rating        | Unit |
|---------------------------------------------|-----------------|---------------|------|
| Peak Repetitive Reverse Voltage             | $V_{RRM}$       | 600           | V    |
| RMS Reverse Voltage                         | $V_{RMS}$       | 420           | V    |
| DC Blocking Voltage                         | $V_{DC}$        | 600           | V    |
| Forward Current                             | $I_F$           | $1 \times 10$ | A    |
| Peak forward surge current                  | $I_{FSM}$       | 100           | A    |
| Typical Thermal Resistance Junction to Case | $R_{\theta Jc}$ | 4             | /W   |
| Junction Temperature Range                  | $T_J$           | 150           |      |
| Storage Temperature Range                   | $T_{stg}$       | -55 150       |      |

| Parameter                     | Symbol          | Test Conditions                             | Min | Typ  | Max | Unit    |
|-------------------------------|-----------------|---------------------------------------------|-----|------|-----|---------|
| Reverse Voltage               | $V_R$           | $I_R=1mA$                                   | 600 |      |     | V       |
| Forward Voltage               | $V_F$           | $I_F=2.0A \quad T_C=25$                     |     | 1.0  | 1.2 | V       |
|                               |                 | $I_F=2.0A \quad T_C=125$                    |     | 0.80 | 1.0 |         |
|                               |                 | $I_F=10A \quad T_C=25$                      |     | 1.3  | 1.5 |         |
|                               |                 | $I_F=10A \quad T_C=125$                     |     | 1.2  | 1.4 |         |
| Instantaneous Reverse Current | $I_R$<br>Note 1 | $V_R=600V \quad T_a=25$                     |     |      | 10  | $\mu A$ |
|                               |                 | $V_R=600V \quad T_a=125$                    |     |      | 500 |         |
| Reverse Recovery Time         | $t_{rr}$        | $I_F=0.5A \quad I_R=1.0A$<br>$I_{RR}=0.25A$ |     |      | 50  | ns      |

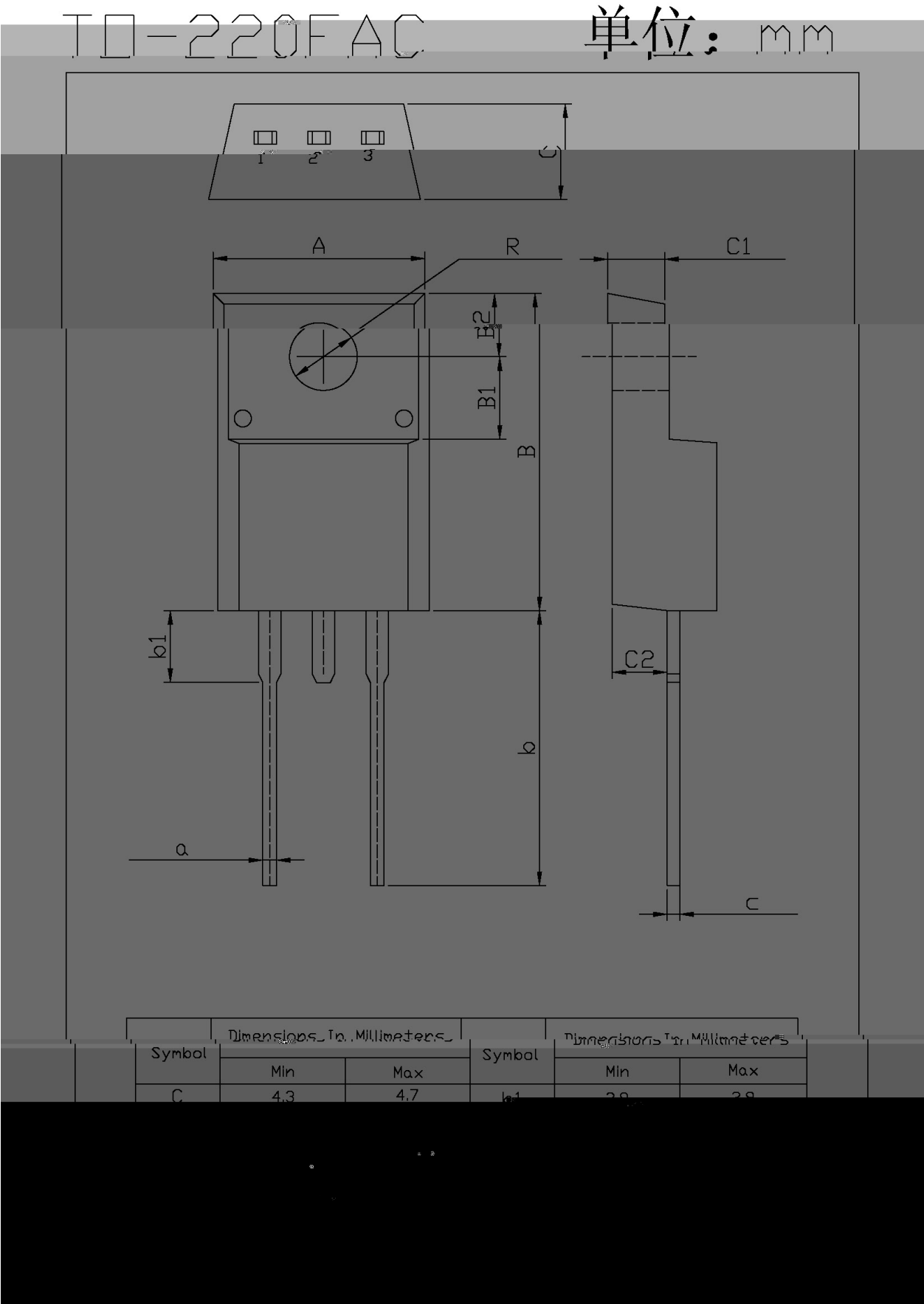
/Notes

 1.  $r$   $\Delta E$   $\frac{3}{4}$   $\begin{matrix} + \\ + \end{matrix}$

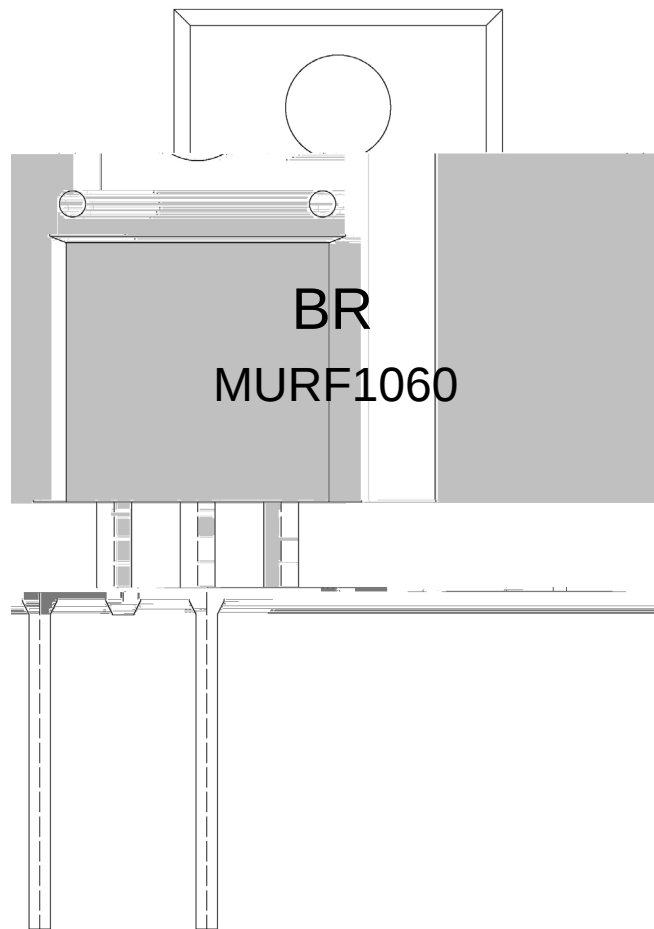
**/ Electrical Characteristic Curve**



/ Package Dimensions



**/ Marking Instructions**



BR

MURF1060

\*\*\*\*

Note:

BR: Company Code

MURF1060 Product Type.

\*\*\*\*: Lot No. Code, code change with Lot No.

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



Note:

- |   |       |     |           |                                         |                                      |
|---|-------|-----|-----------|-----------------------------------------|--------------------------------------|
| 1 | 25    | 150 | 60        | 90sec;                                  | 1.Preheating:25~150 , Time:60~90sec. |
| 2 | 255±5 |     | 5±0.5sec; | 2.Peak Temp.:255±5 , Duration:5±0.5sec. |                                      |
| 3 |       | 2   | 10        | /sec.                                   | 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<br>封装形式 | Units 包装数量 |     |     |     |     | Dimension 包装尺寸 (unit: mm <sup>3</sup> ) |   |   |
|----------------------|------------|-----|-----|-----|-----|-----------------------------------------|---|---|
|                      | 只 袋        | 袋 盒 | 只 盒 | 盒 箱 | 只 箱 | 袋                                       | 盒 | 箱 |
|                      |            |     |     |     |     |                                         |   |   |

/ TUBE

| Package Type<br>封装形式 | Units 包装数量 |      |     |     |     | Dimension 包装尺寸 (unit: mm <sup>3</sup> ) |  |  |
|----------------------|------------|------|-----|-----|-----|-----------------------------------------|--|--|
|                      | 只 套管       | 套管 盒 | 只 盒 | 盒 箱 | 只 箱 |                                         |  |  |
|                      |            |      |     |     |     |                                         |  |  |