



# 肖特基二极管 SCHOTTKY BARRIER DIODE FHP10150A/FHF10150A

## 主要参数 MAIN CHARACTERISTICS

|                            |          |
|----------------------------|----------|
| $I_{F(AV)}$                | 10(2×5)A |
| $V_{RRM}$                  | 150 V    |
| $V_F$ -typ ( @ $I_F=10A$ ) | 0.8V     |
| $T_J$                      | 150°C    |

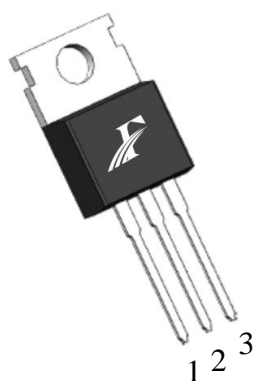
## 产品特性 FEATURES

|          |                                   |
|----------|-----------------------------------|
| 共阴结构     | Common cathode structure          |
| 低功耗      | Low power loss                    |
| 高抗浪涌电流能力 | Improved surge current capability |
| RoHS 产品  | RoHS product                      |

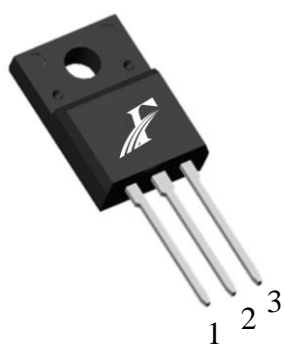
## 用途 APPLICATIONS

|        |                                    |
|--------|------------------------------------|
| 高频开关电源 | High frequency switch power supply |
| 极性保护电路 | Polarity protection application    |

## 封装形式 Package



TO-220  
FHP series



TO-220F  
FHF series

## 等效电路 Equivalent Circuit



## 绝对最大额定值 ABSOLUTE RATINGS ( $T_c=25^\circ C$ )

| 项 目<br>Parameter  | 符 号<br>Symbol | 数 值<br>Value | 单 位<br>Unit |
|---|---------------|--------------|-------------|
| 最大反向重复峰值电压<br>Repetitive peak reverse voltage   | $V_{RRM}$     | 150          | V           |
| 最大直流阻断电压<br>Maximum DC blocking voltage   | $V_{DC}$      | 150          | V           |
| 正向平均整流电流<br>Average forward current   | $I_{F(AV)}$   | 10           | A           |
| 整个器件<br>per device<br>单 侧<br>per diode  |               | 5            |             |
| 正向峰值浪涌电流<br>Surge non repetitive forward current<br>(额定负载 8.3ms 半正弦波—按 JEDEC 方法)<br>8.3 ms single half-sine-wave (JEDEC Method) | $I_{FSM}$     | 190          | A           |
| 最高结温<br>Maximum junction temperature  | $T_j$         | 150          | °C          |
| 储存温度<br>Storage temperature range   | $T_{STG}$     | -40~+150     | °C          |

## 电特性 ELECTRICAL CHARACTERISTICS

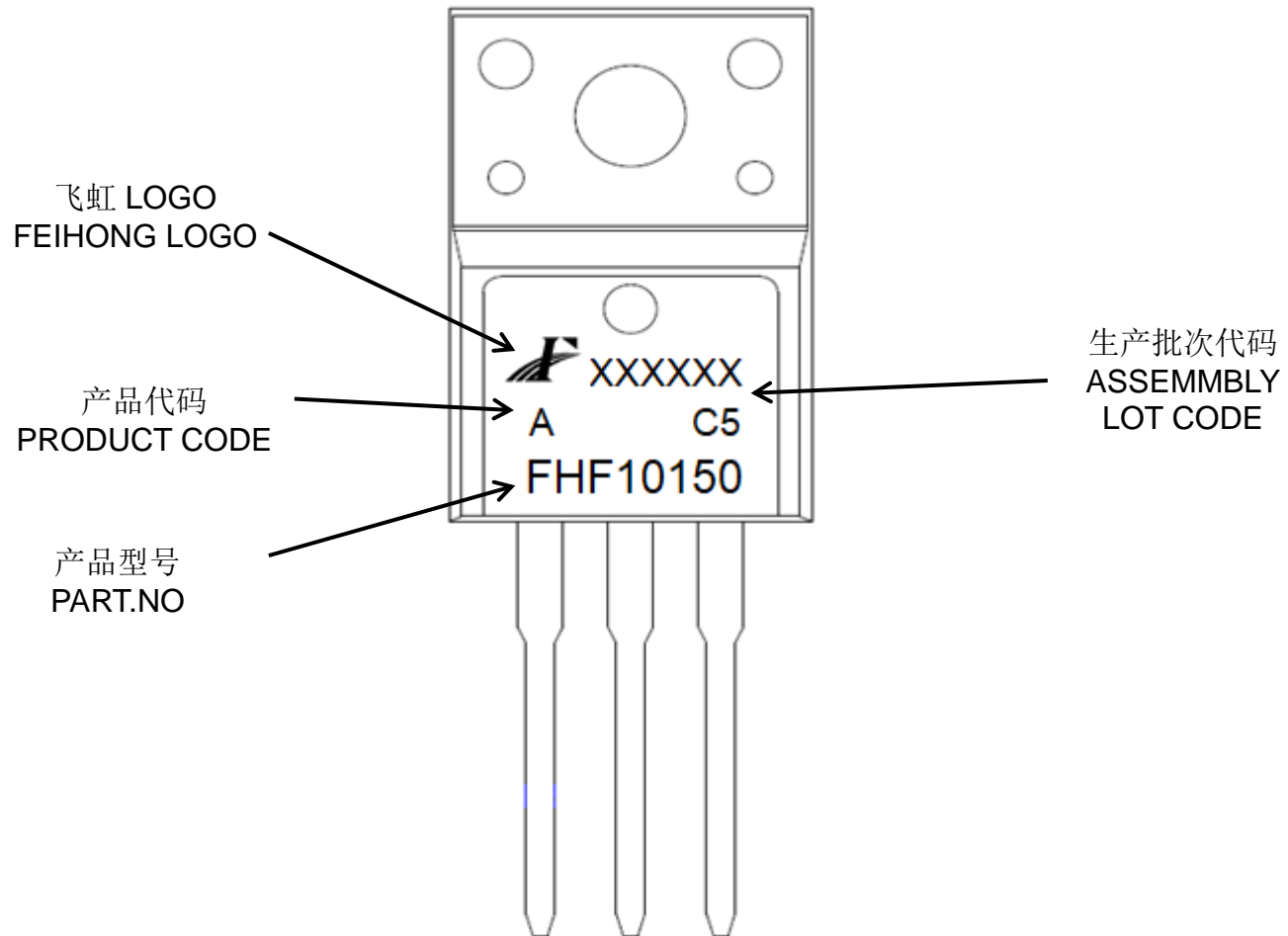
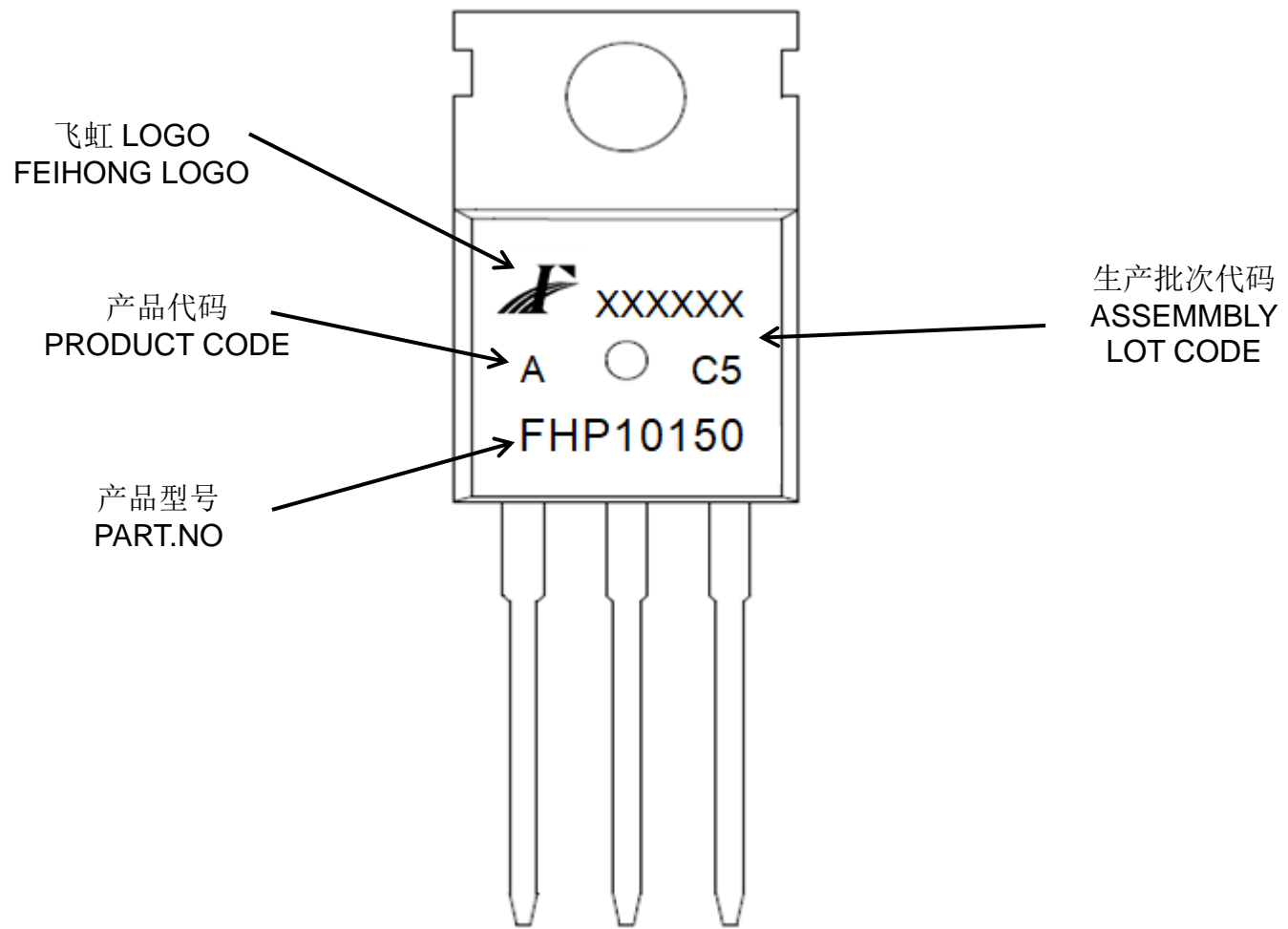
| 项 目<br>Parameter | 测试条件<br>Tests conditions |                 | 最小值<br>Value (min) | 典型值<br>Value (typ) | 最大值<br>Value (max) | 单位<br>Unit |
|------------------|--------------------------|-----------------|--------------------|--------------------|--------------------|------------|
|                  | $T_a$                    | $V_R$           |                    |                    |                    |            |
| $I_R$            | $T_a = 25^\circ C$       | $V_R = V_{RRM}$ | -                  | 0.7                | 5                  | $\mu A$    |
|                  | $T_a = 125^\circ C$      |                 | -                  | -                  | 0.5                | mA         |
| $V_F$            | $T_a = 25^\circ C$       | $I_F = 5A$      | -                  | 0.8                | 0.87               | V          |
|                  | $T_a = 125^\circ C$      |                 | -                  | 0.72               | 0.81               | V          |

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## 热特性 THERMAL CHARACTERISTIC

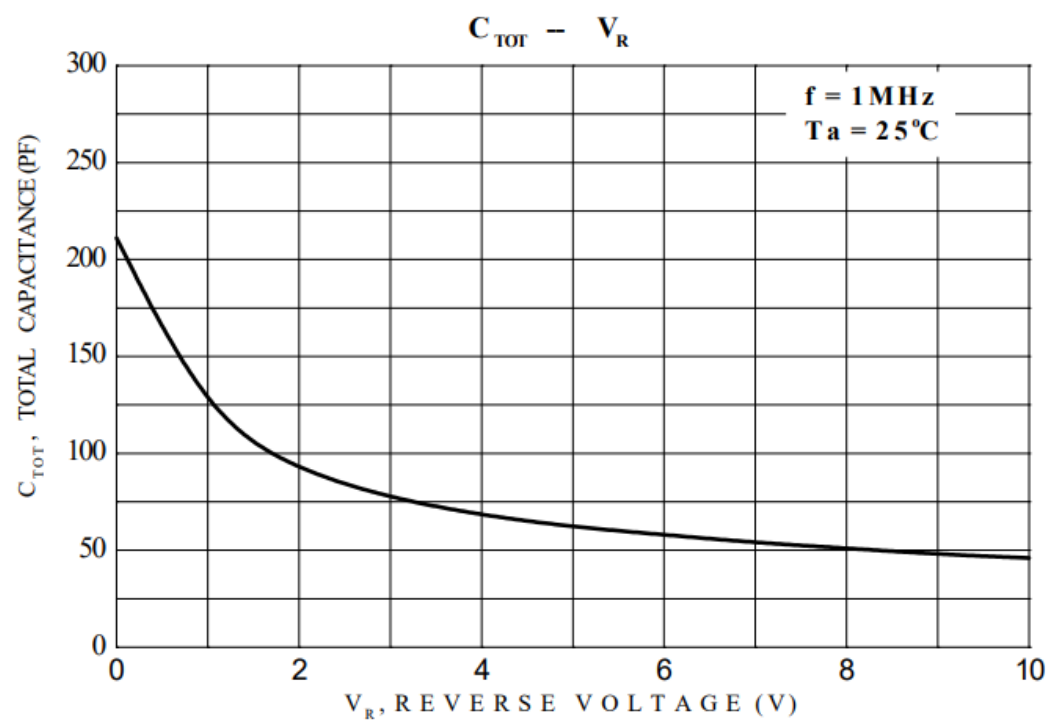
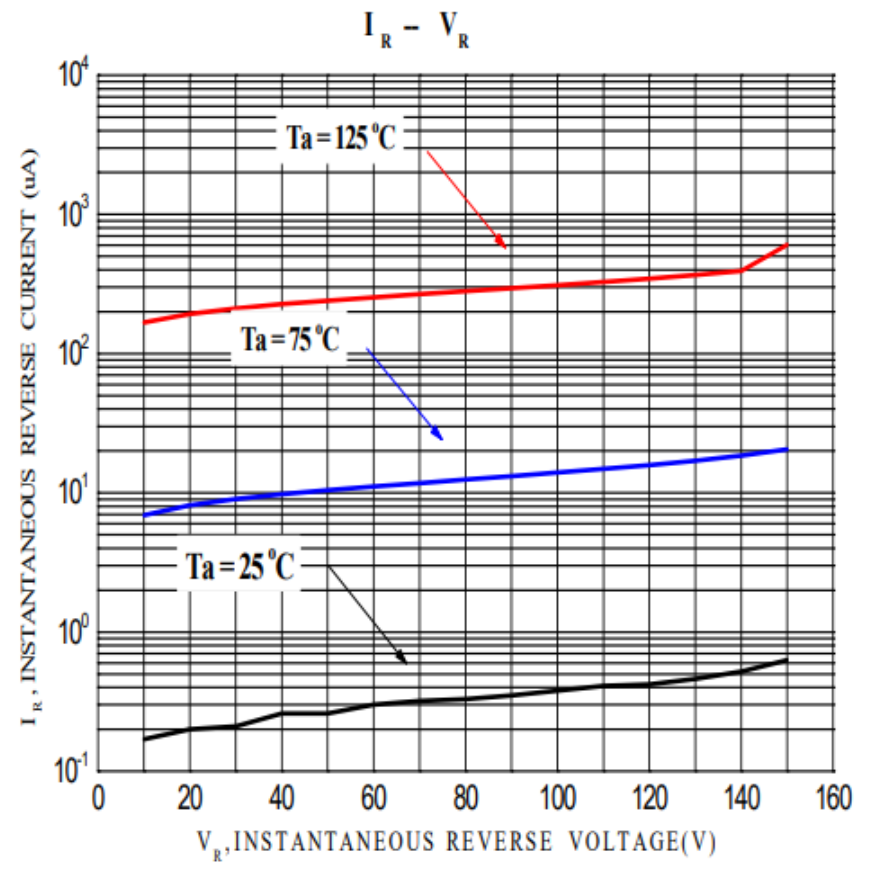
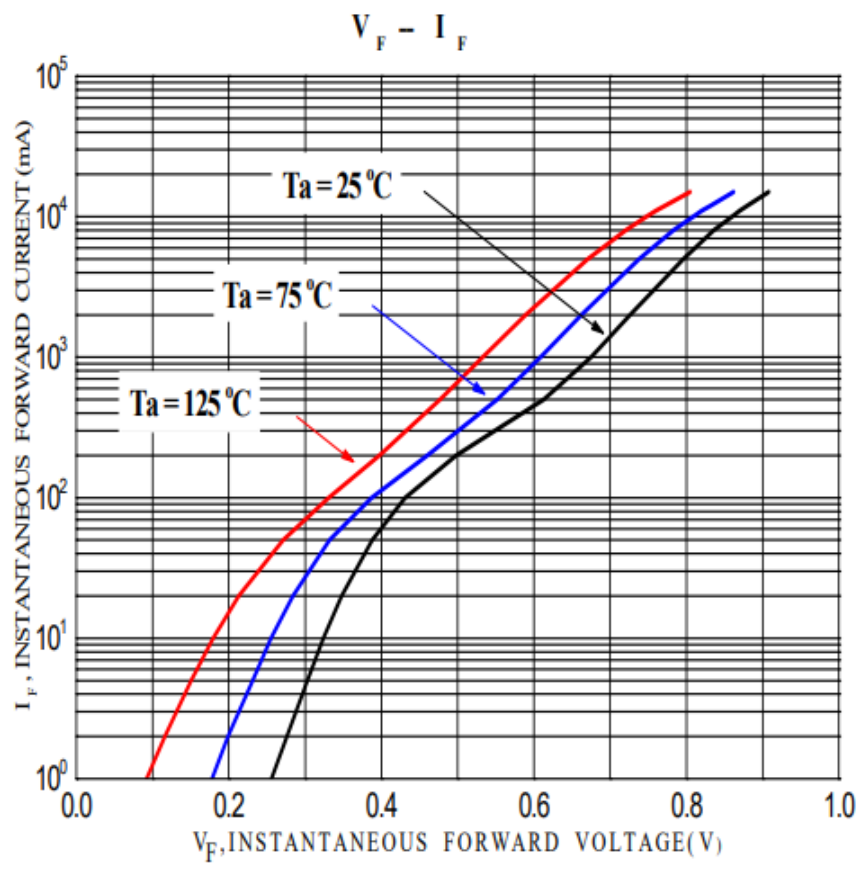
| 项 目<br>Parameter                                    |         | 符 号<br>Symbol | 最大值<br>Value<br>(max) | 单 位<br>Unit |
|---|---------|---------------|-----------------------|-------------|
| 结到管壳的热阻<br>Thermal resistance from junction to case | TO-220  | Rth(j-c)      | 1.9                   | °C/W        |
|   | TO-220F |               | 3.5                   |             |

印记 Marking:



# 特性曲线

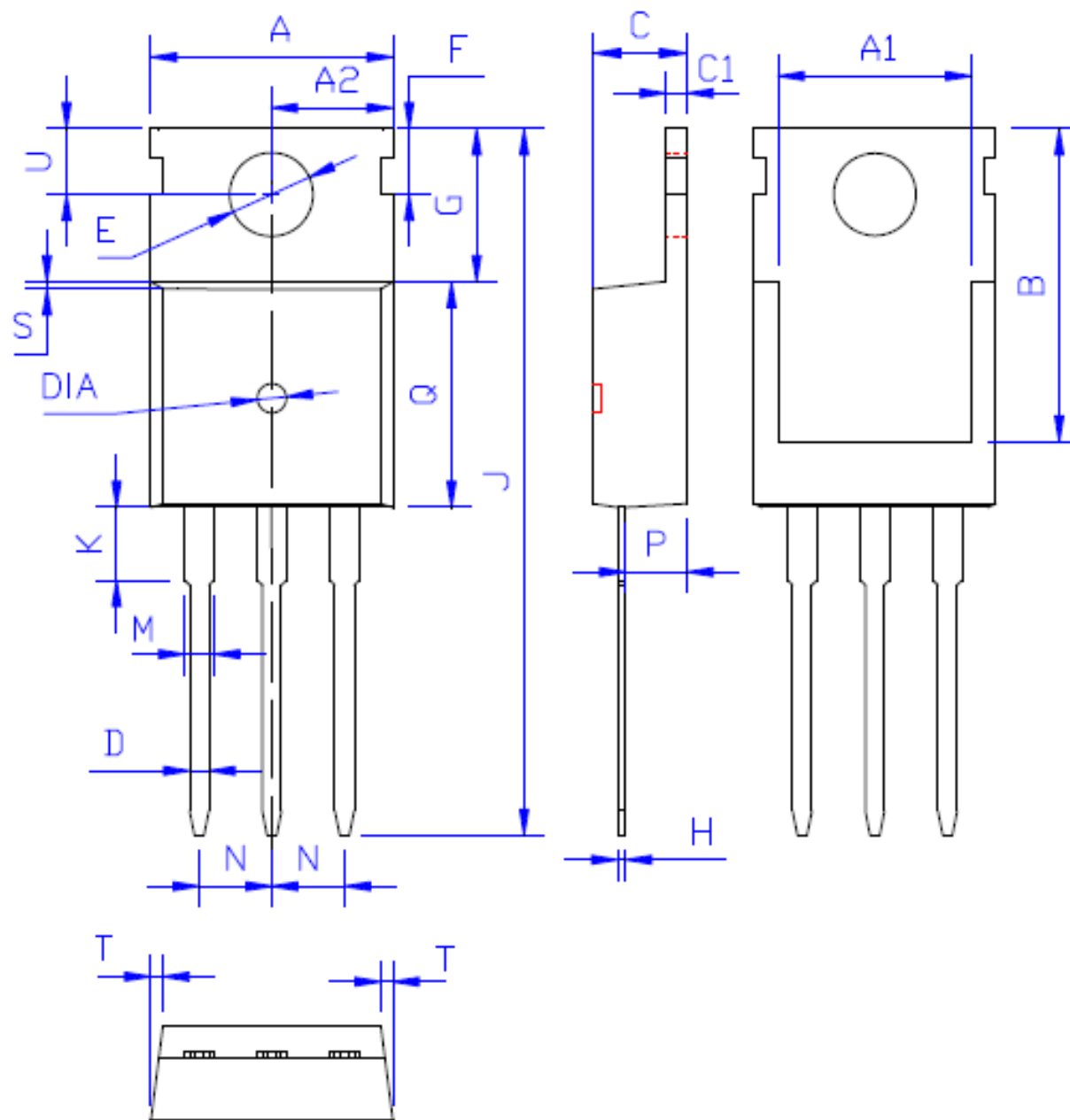
## (ELECTRICAL CHARACTERISTICS (curves))



外形尺寸:

Package Dimension:

TO-220



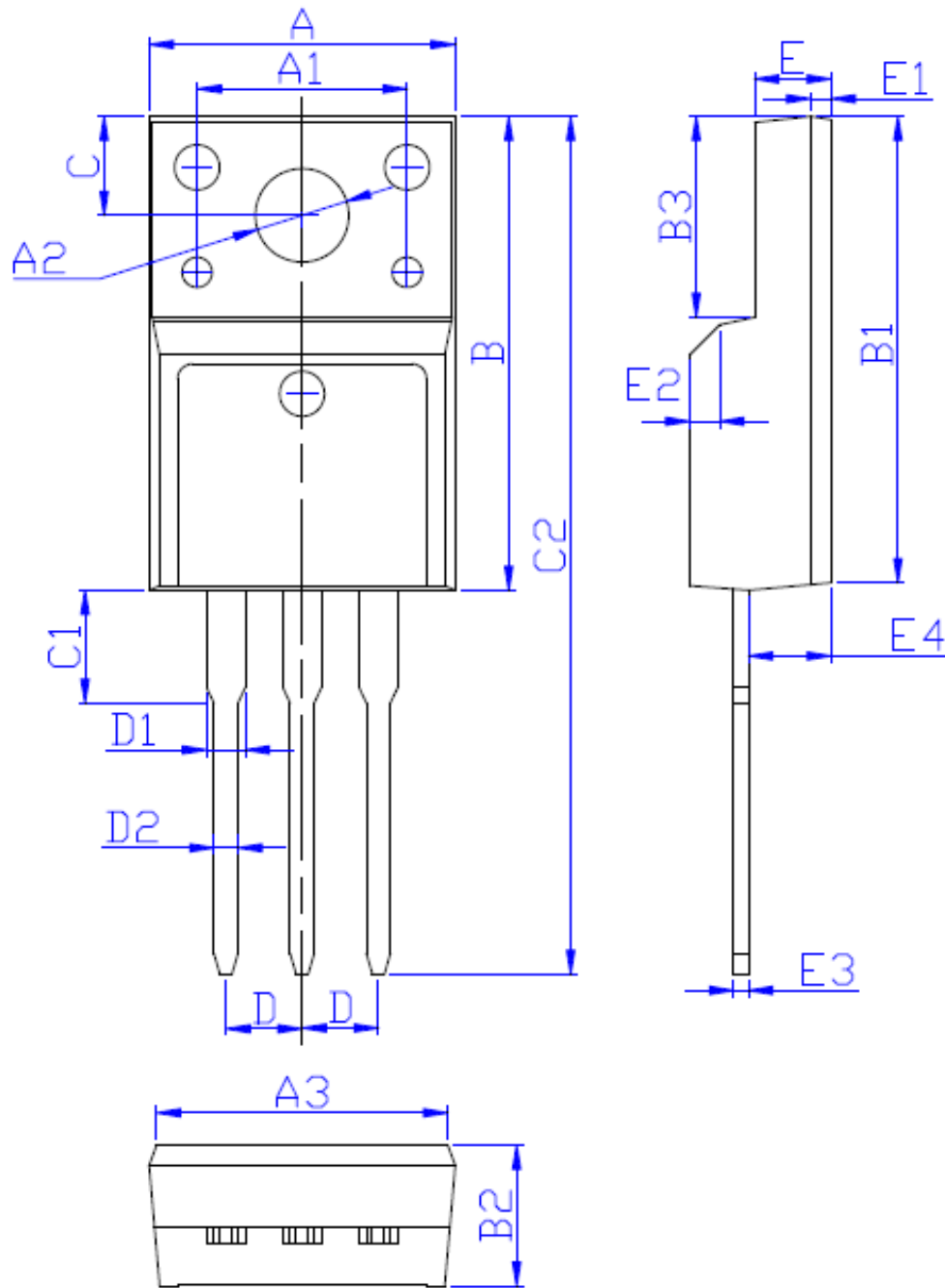
| DIM | MILLIMETERS                 |
|-----|-----------------------------|
| A   | 10.00 ± 0.30                |
| A1  | 8.00 ± 0.30                 |
| A2  | 5.00 ± 0.30                 |
| B   | 13.20 ± 0.40                |
| C   | 4.50 ± 0.20                 |
| C1  | 1.30 ± 0.20                 |
| D   | 0.80 ± 0.20                 |
| E   | 3.60 ± 0.20                 |
| F   | 3.00 ± 0.30                 |
| G   | 6.60 ± 0.40                 |
| H   | 0.50 ± 0.20                 |
| J   | 28.88 ± 0.50                |
| K   | 3.00 ± 0.30                 |
| M   | 1.30 ± 0.30                 |
| N   | Typical 2.54                |
| P   | 2.40 ± 0.40                 |
| Q   | 9.20 ± 0.40                 |
| S   | 0.25 ± 0.15                 |
| T   | 0.25 ± 0.15                 |
| U   | 2.80 ± 0.30                 |
| DIA | 宽 1.50 ± 0.10<br>深 0.50 MAX |

(Unit: mm)

外形尺寸:

Package Dimension:

TO-220F



| DIM | MILLIMETERS  |
|-----|--------------|
| A   | 10.16±0.30   |
| A1  | 7.00±0.20    |
| A2  | 3.12±0.20    |
| A3  | 9.70±0.30    |
| B   | 15.90±0.50   |
| B1  | 15.60±0.50   |
| B2  | 4.70±0.30    |
| B3  | 6.70±0.30    |
| C   | 3.30±0.25    |
| C1  | 3.25±0.30    |
| C2  | 28.70±0.50   |
| D   | Typical 2.54 |
| D1  | 1.47 (MAX)   |
| D2  | 0.80±0.20    |
| E   | 2.55±0.25    |
| E1  | 0.70±0.25    |
| E2  | 1.0×45°      |
| E3  | 0.50±0.20    |
| E4  | 2.75±0.30    |

(Unit:mm)