

NPN MJE 系列晶体管/MJE SERIES TRANSISTORS

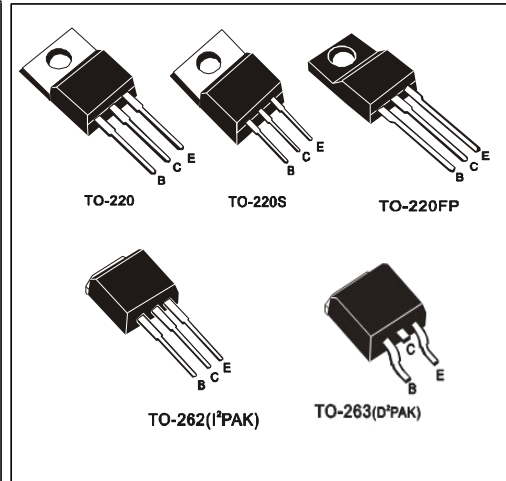
MJE13007A

- 特点: 耐高压 开关速度快 安全工作区宽 符合 RoHS 规范
- FEATURES: ■HIGH VOLTAGE CAPABILITY ■HIGH SPEED SWITCHING ■WIDE SOA ■RoHS COMPLIANT
- 应用: 节能灯 电子镇流器 电子变压器 开关电源
- APPLICATION: ■FLUORESCENT LAMP ■ELECTRONIC BALLAST ■ELECTRONIC TRANSFORMER
■SWITCH MODE POWER SUPPLY

●最大额定值 (Tc=25°C)

●Absolute Maximum Ratings (Tc=25°C) TO-220/220S/220FP/262/263

| 参数 PARAMETER | 符号 SYMBOL | 额定值 VALUE | 单位 UNIT |
|--|------------------|----------------|------------|
| 集电极-基极电压 Collector-Base Voltage | V _{CB0} | 700 | V |
| 集电极-发射极电压 Collector-Emitter Voltage | V _{CEO} | 400 | V |
| 发射极-基极电压 Emitter-Base Voltage | V _{EBO} | 9 | V |
| 集电极电流 Collector Current | I _C | 8.0 | A |
| 集电极耗散功率 Total Power Dissipation | P _{tot} | TO-220/220S:85 | W |
| | | TO-220FP:45 | |
| | | TO-262/263:85 | |
| 最高工作温度 Junction Temperature | T _j | 150 | °C |
| 贮存温度 Storage Temperature | T _{stg} | -65-150 | °C |



●电特性 (Tc=25°C)

●Electronic Characteristics (Tc=25°C)

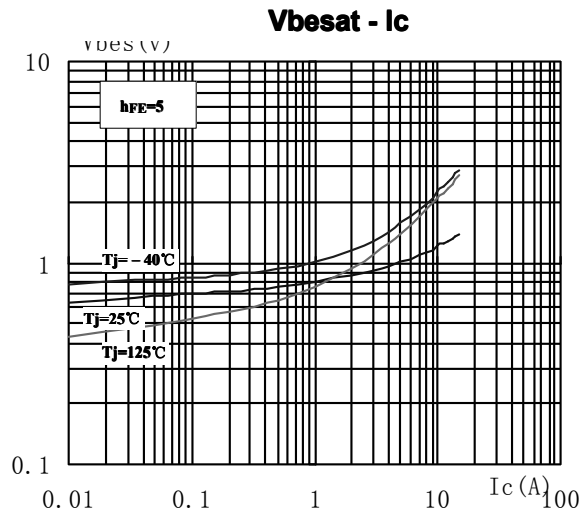
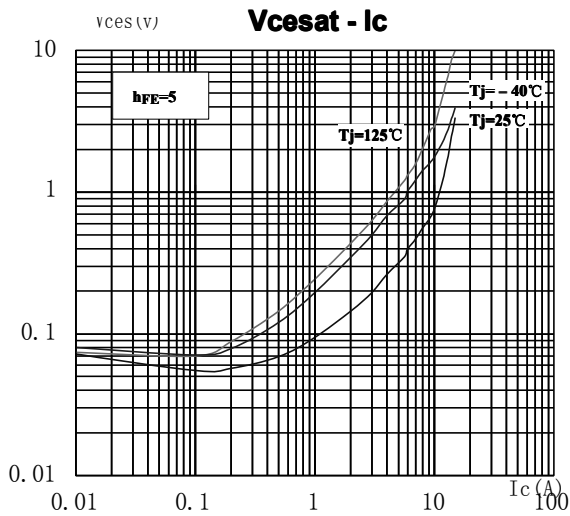
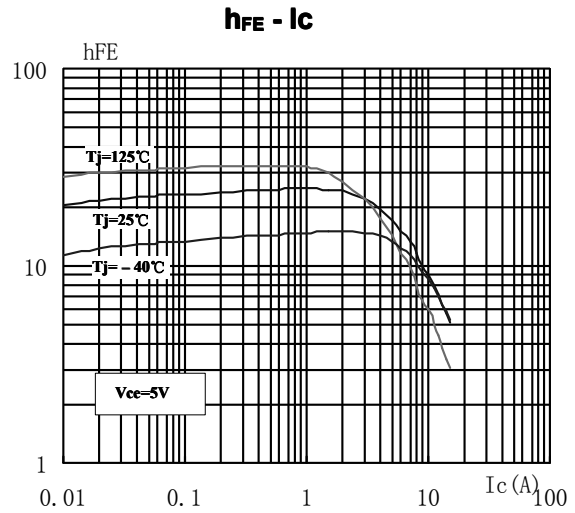
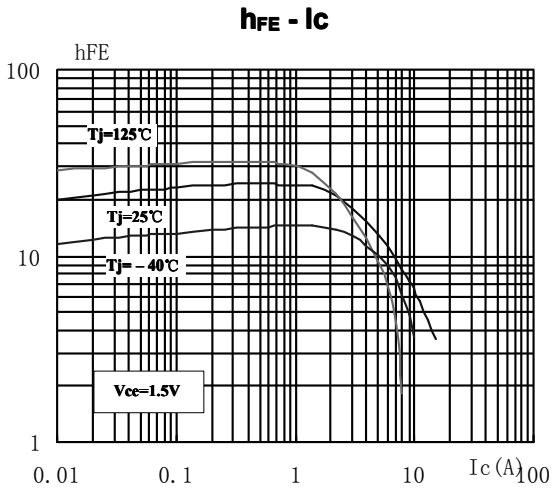
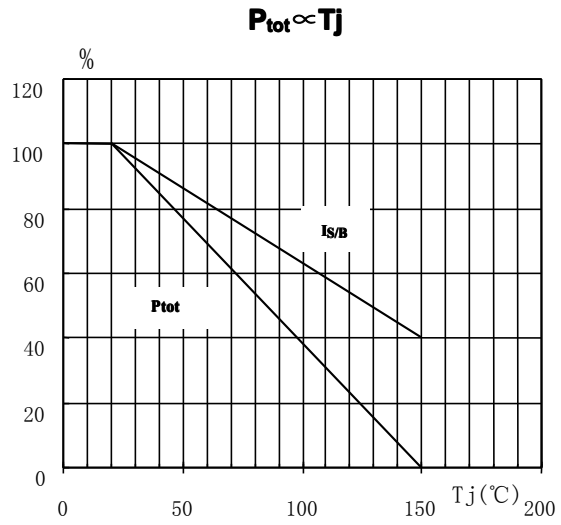
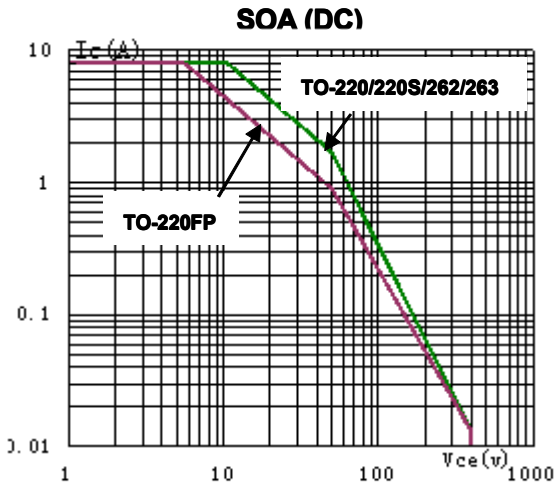
| 参数名称 CHARACTERISTICS | 符号 SYMBOL | 测试条件 TEST CONDITION | 最小值 MIN | 最大值 MAX | 单位 UNIT |
|---|--------------------|--|------------|------------|------------|
| 集电极-基极截止电流 Collector-Base Cutoff Current | I _{CB0} | V _{CB} =700V | | 100 | μA |
| 集电极-发射极截止电流 Collector-Emitter Cutoff Current | I _{CEO} | V _{CE} =400V, I _B =0 | | 250 | μA |
| 集电极-基极电压 Collector-Base Voltage | V _{CB0} | I _C =1mA, I _E =0 | 700 | | V |
| 集电极-发射极电压 Collector-Emitter Voltage | V _{CEO} | I _C =10mA, I _B =0 | 400 | | V |
| 发射极-基极电压 Emitter-Base Voltage | V _{EBO} | I _E =1mA, I _C =0 | 9 | | V |
| 集电极-发射极饱和电压 Collector-Emitter Saturation Voltage | V _{cesat} | I _C =2.0A, I _B =0.4A | | 0.4 | V |
| | | I _C =8.0A, I _B =2.0A | | 1.0 | |
| 发射极-基极饱和电压 Base-Emitter Saturation Voltage | V _{besat} | I _C =2A, I _B =0.4A | | 1.2 | V |
| 电流放大倍数 DC Current Gain | h _{FE} | V _{CE} =5V, I _C =10mA | 7 | | |
| | | V _{CE} =5V, I _C =2.0A | 10 | 40 | |
| | | V _{CE} =5V, I _C =8A | 5 | | |
| 贮存时间/Storage Time | t _s | V _{CC} =5V, I _C =0.5A | 3.0 | 7.0 | μs |
| 下降时间/Falling Time | t _f | (UI9600) | | 0.20 | |

●订单信息/ORDERING INFORMATION:

| 包装形式/PACKING | 订货编码/ORDERING CODE | |
|------------------------------------|--|--|
| | 普通塑封料/ Normal Package Material | 无卤塑封料/Halogen Free |
| TO-220 普通袋装/NORMAL PACKING | MJE13007A TO-220 | MJE13007A TO-220-HF |
| TO-220S 普通袋装/NORMAL PACKING | MJE13007A TO-220S | MJE13007A TO-220S-HF |
| TO-220 条管装/TUBE PACKING | MJE13007A TO-220-TU | MJE13007A TO-220-TU-HF |
| TO-220FP 普通袋装/NORMAL PACKING | MJE13007A TO-220FP | MJE13007A TO-220FP-HF |
| TO-220FP 条管装/TUBE PACKING | MJE13007A TO-220FP-TU | MJE13007A TO-220FP-TU-HF |
| TO-262 普通袋装/NORMAL PACKING | MJE13003 TO-262 | MJE13003 TO-262-HF |
| TO-262 或 263 条管装/TUBE PACKING | MJE13007A TO-262-TU 或 MJE13007A TO-263-TU | MJE13007A TO-262-TU-HF 或 MJE13007A TO-263-TU-HF |
| TO-263 编带装/TAPE & REEL PACKING | MJE13007A TO-263-TR | MJE13007A TO-263-TR-HF |

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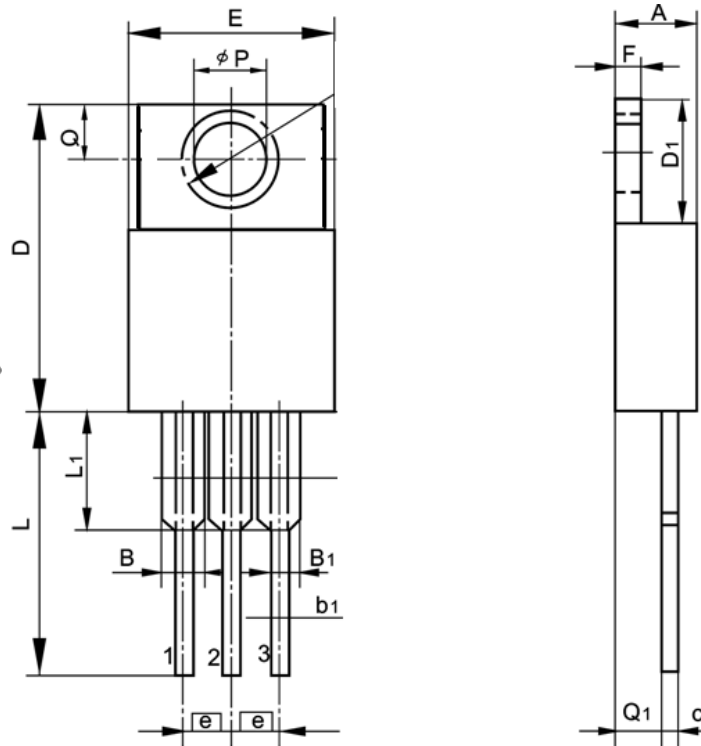
MJE13007A



TO-220 封装机械尺寸 TO-220 MECHANICAL DATA

单位：毫米/UNIT: mm

| 符号 SYMBOL | 最小值 min | 典型值 nom | 最大值 max | 符号 SYMBOL | 最小值 min | 典型值 nom | 最大值 max |
|--------------|------------|------------|------------|--------------|------------|------------|------------|
| A | 4.00 | | 4.80 | E | 9.90 | | 10.70 |
| B | 1.20 | | 1.50 | e | | 2.54 | |
| B1 | 1.00 | | 1.40 | F | 1.10 | | 1.45 |
| b1 | 0.65 | | 1.00 | L | 12.50 | | 14.50 |
| c | 0.35 | | 0.75 | L1 | 3.00 | 3.50 | 4.00 |
| D | 15.00 | | 16.50 | Q | 2.50 | | 3.00 |
| D1 | 5.90 | | 6.90 | Q1 | 2.00 | | 3.00 |
| | | | | ϕP | 3.60 | | 3.90 |

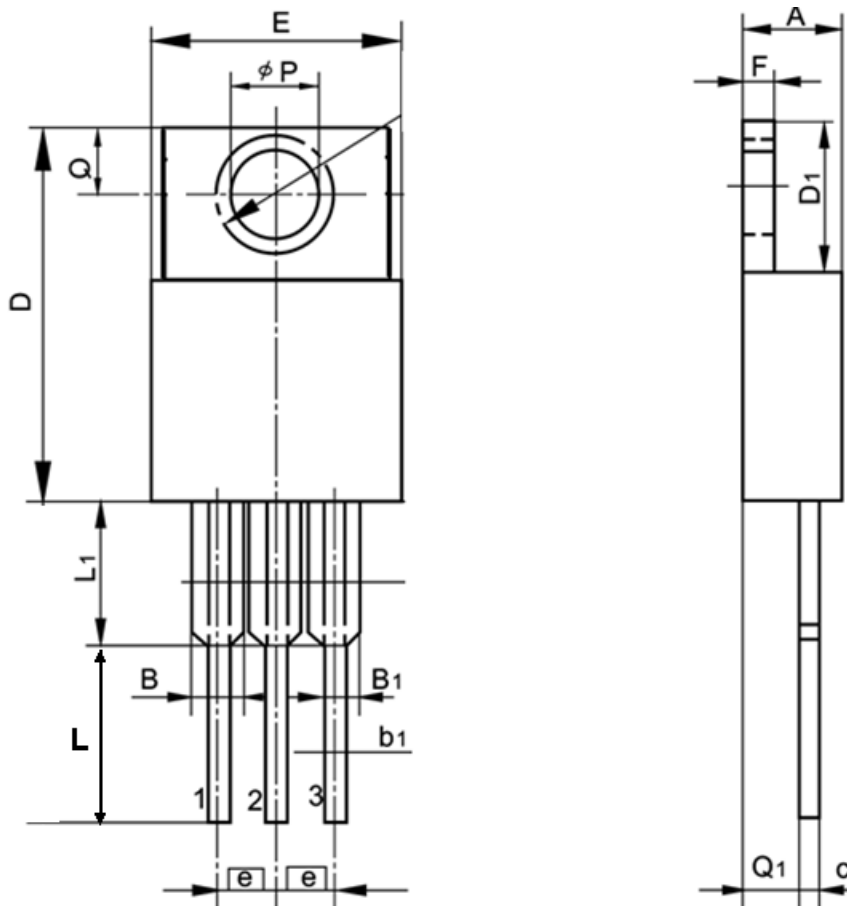


TO-220S 封装机械尺寸

TO-220S MECHANICAL DATA

单位：毫米/UNIT: mm

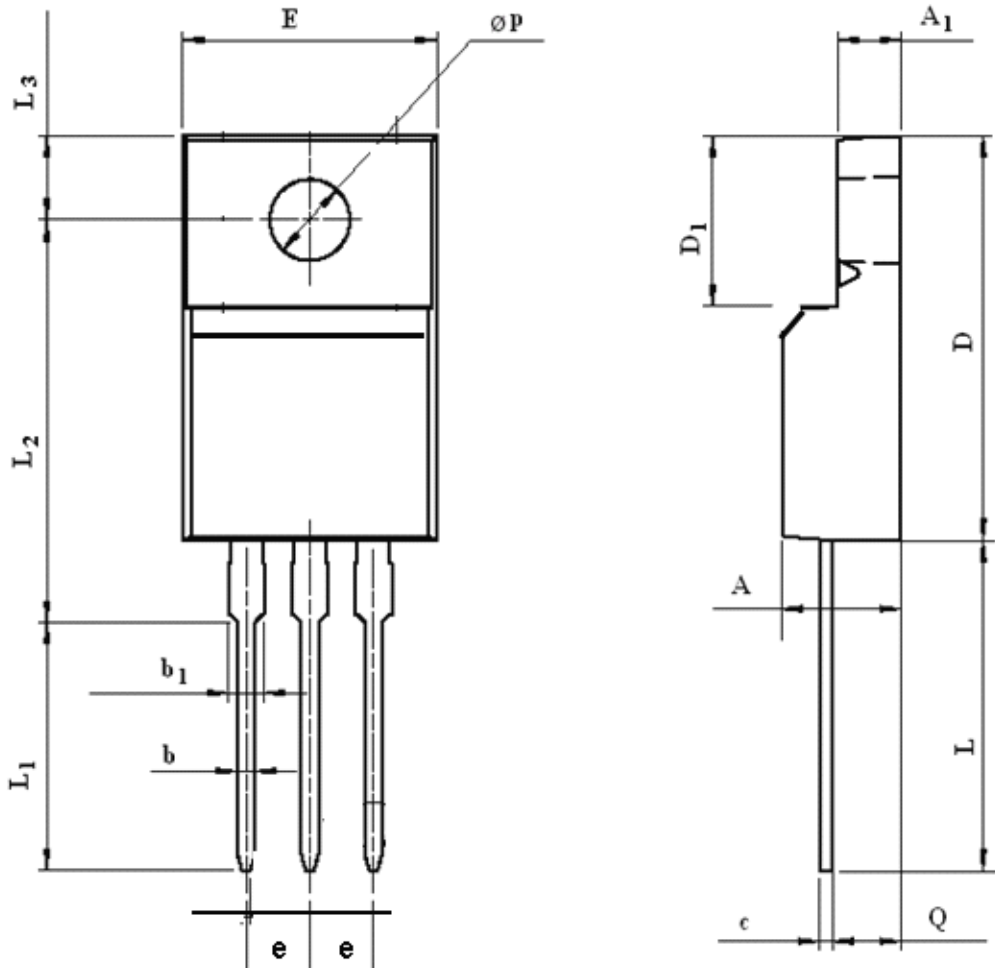
| 符号 SYMBOL | 最小值 min | 典型值 nom | 最大值 max | 符号 SYMBOL | 最小值 min | 典型值 nom | 最大值 max |
|--------------|------------|------------|------------|--------------|------------|------------|------------|
| A | 4.00 | | 4.80 | E | 9.90 | | 10.70 |
| B | 1.27 | | 1.50 | e | | 2.54 | |
| B1 | | | 1.40 | F | 1.20 | | 1.45 |
| b1 | 0.75 | | 1.00 | L | 3.20 | | 3.80 |
| c | 0.38 | | 0.75 | L1 | | | 3.50 |
| D | 15.00 | | 16.5 | φP | 3.60 | | 3.90 |
| D1 | 5.90 | | 6.60 | Q | 2.50 | | 3.00 |
| | | | | Q1 | 2.00 | | 3.00 |



TO-220FP 封装机械尺寸 TO-220FP MECHANICAL DATA

单位:毫米/UNIT: mm

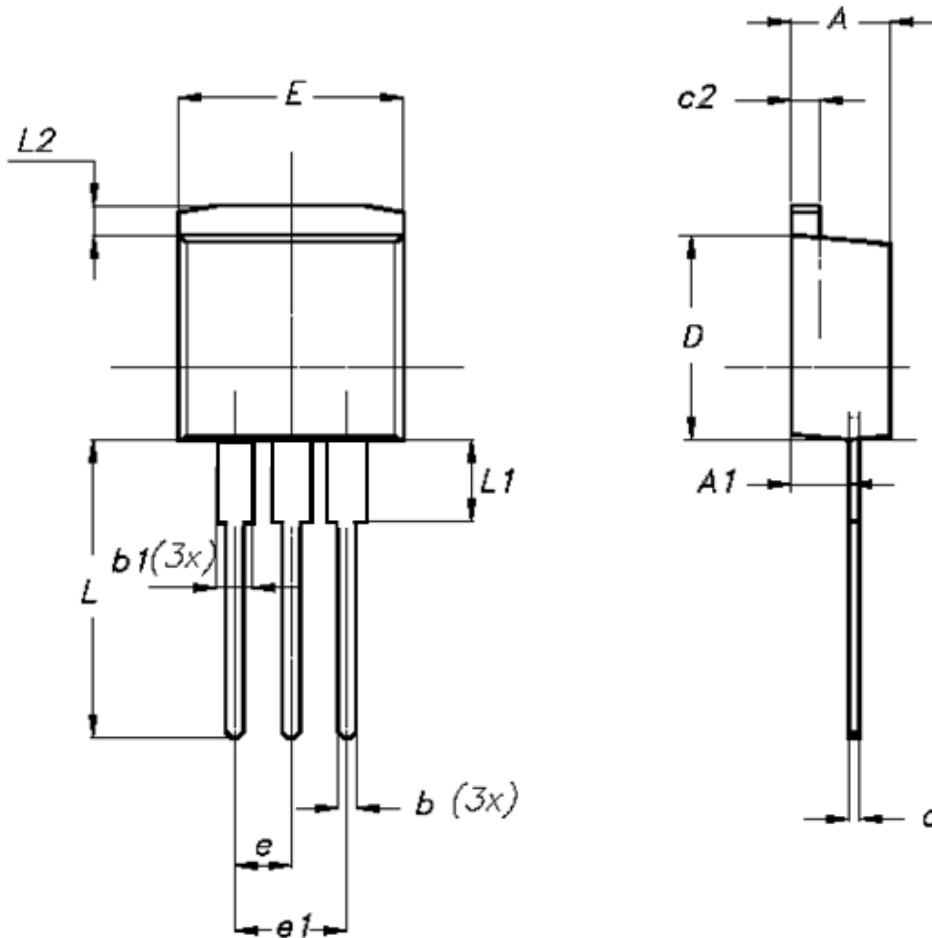
| 符号 SYMBOL | 最小值 min | 典型值 nom | 最大值 max | 符号 SYMBOL | 最小值 min | 典型值 nom | 最大值 max |
|----------------|------------|------------|------------|----------------|------------|------------|------------|
| A | 4.40 | | 4.95 | e | | 2.54 | |
| A ₁ | 2.30 | | 2.90 | L | 12.50 | | 14.30 |
| b | 0.45 | | 0.90 | L ₁ | 9.10 | | 10.05 |
| b ₁ | 1.10 | | 1.70 | L ₂ | 15.00 | | 16.00 |
| c | 0.35 | | 0.90 | L ₃ | 3.00 | | 4.00 |
| D | 14.50 | | 17.00 | ∅p | 3.00 | | 3.50 |
| D ₁ | 6.10 | | 9.00 | Q | 2.30 | | 2.80 |
| E | 9.60 | | 10.30 | | | | |



TO-262 封装机械尺寸 TO-262 MECHANICAL DATA

单位：毫米/UNIT: mm

| 符号 SYMBOL | 最小值 min | 典型值 nom | 最大值 max | 符号 SYMBOL | 最小值 min | 典型值 nom | 最大值 max |
|--------------|------------|------------|------------|--------------|------------|------------|------------|
| A | 3.80 | | 4.80 | e | | 2.54 | |
| A1 | 2.00 | | 2.80 | e1 | | | 5.30 |
| b | 0.60 | | 1.00 | E | 9.90 | | 10.70 |
| b1 | 1.20 | | 1.40 | L | 12.50 | | 14.50 |
| c | 0.40 | | 0.70 | L1 | 0.80 | 1.00 | 1.20 |
| c2 | 1.10 | | 1.40 | L2 | | | 1.50 |
| D | | | 9.60 | | | | |

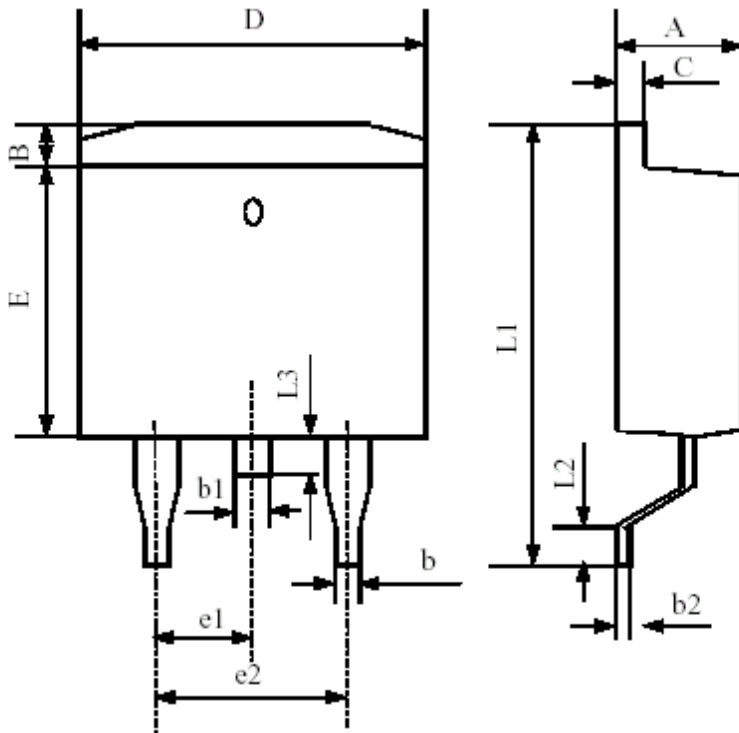


TO-263 封装机械尺寸

TO-263(D2PAK) MECHANICAL DATA

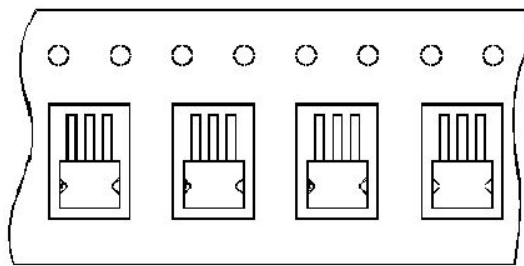
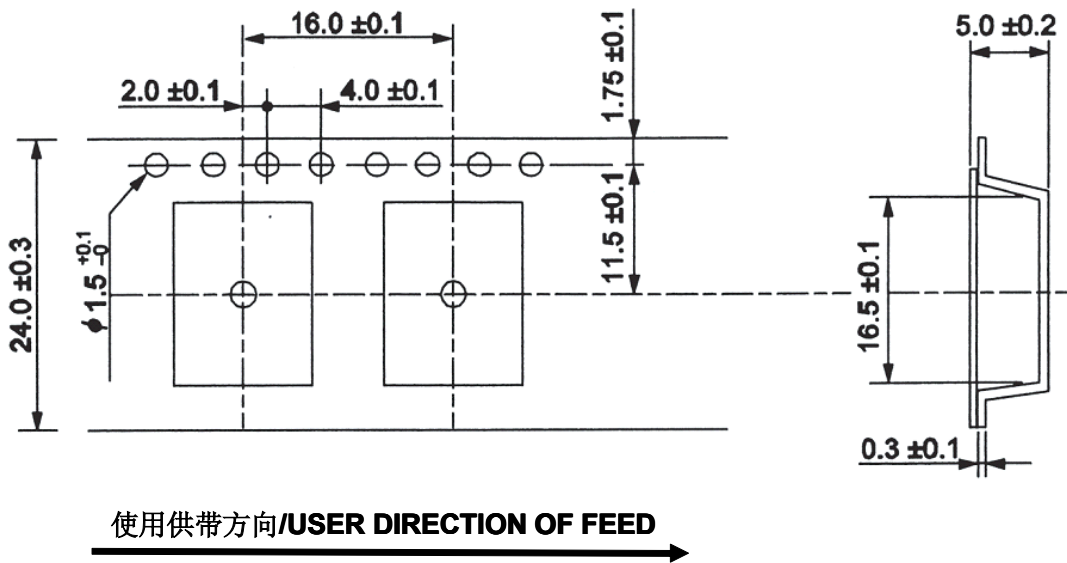
单位：毫米/UNIT: mm

| 符号 SYMBOL | 最小值 min | 典型值 nom | 最大值 max | 符号 SYMBOL | 最小值 min | 典型值 nom | 最大值 max |
|--------------|------------|------------|------------|--------------|------------|------------|------------|
| A | 4.42 | | 4.72 | E | 8.99 | | 9.29 |
| B | 1.22 | | 1.32 | e1 | 2.44 | | 2.64 |
| b | 0.76 | | 0.86 | e2 | 4.98 | | 5.18 |
| b1 | 1.22 | | 1.32 | L1 | 15.19 | | 15.79 |
| b2 | 0.33 | | 0.43 | L2 | 2.29 | | 2.79 |
| C | 1.22 | | 1.32 | L3 | 1.30 | | 1.75 |
| D | 9.95 | | 10.25 | | | | |



TO-263 编带规格尺寸 TO-263 TAPE AND REEL DATA

单位:毫米/UNIT: mm



编带器件定位示意图/UNIT ORIENTATION