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|---|---|
| <p>NPN型 低频放大 小功率 贴片三极管 NPN Plastic-Encapsulate Transistors SMD</p> | <p style="text-align: center;">S8050</p> <p style="text-align: center;">对应其他工业型号</p> |
| <ul style="list-style-type: none"> ■ High breakdown voltage ■ Low collector-emitter saturation voltage ■ Transistor Polarity: NPN ■ Transistor pinout: BEC ■ SOT-23 Package ■ Marking Code: J3Y | |

| | | |
|---|---|--|
| <p style="text-align: center;">Inner circuit</p>  <p style="text-align: center;">SOT-23 内部结构</p> | <p style="text-align: center;">S8050</p>  <p style="text-align: center;">SOT-23 管脚排列</p> | <p style="text-align: center;">元件标识 (打印)</p>  <p style="text-align: center;">DEVICE MARKING</p> |
|---|---|--|

■ CLASSIFICATION OF hFE

| | | |
|-------|---------|---------|
| RANK | L | H |
| RANGE | 100~200 | 200~300 |

■ MAXIMUM RATINGS

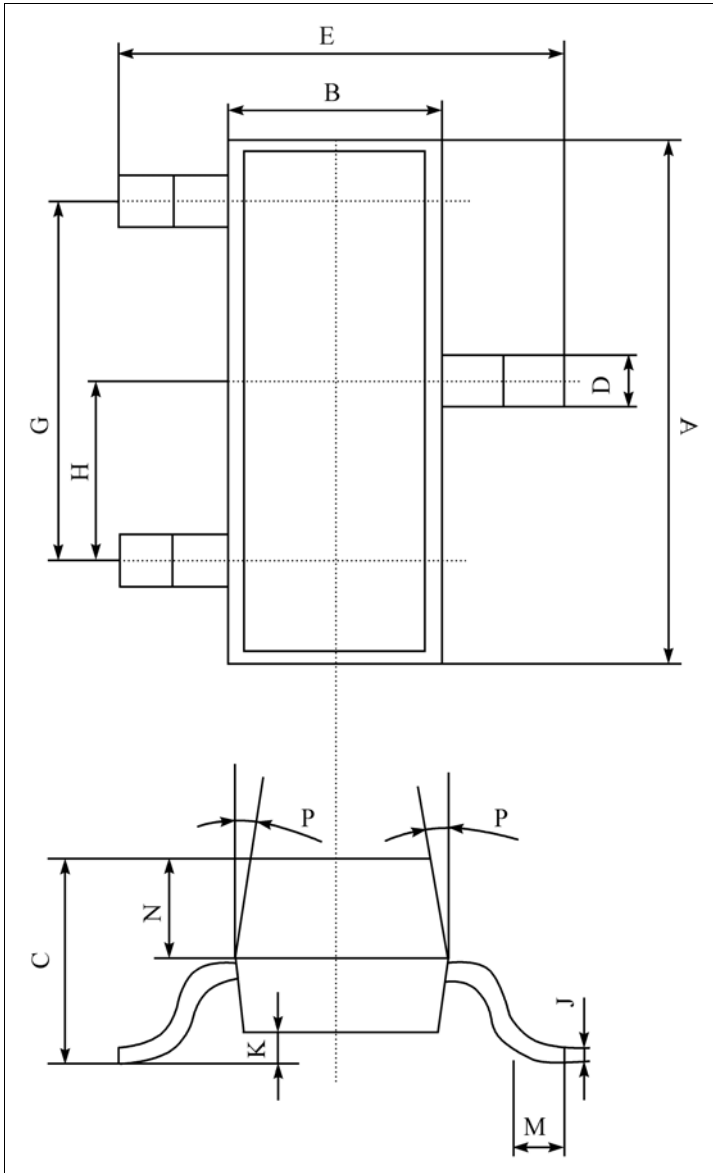
| Symbol | Parameter | Value | Unit |
|----------------|--|----------|------|
| V_{CB0} | Collector-Base Voltage | 40 | V |
| V_{CEO} | Collector-Emitter Voltage | 25 | V |
| V_{EBO} | Emitter-Base Voltage | 5 | V |
| I_C | Collector Current | 500 | mA |
| P_C | Collector Power Dissipation | 225 | mW |
| T_J, T_{stg} | Operation Junction and Storage Temperature Range | -55~+150 | °C |

■ ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$ unless otherwise noted)

| Characteristic | Test Condition | Symbol | Min | Typ | Max | Unit |
|--------------------------------------|---|---------------|-----|-----|-----|---------------|
| Collector Cutoff Current | $V_{CB}=40\text{V}, I_E=0$ | I_{CBO} | -- | -- | 0.1 | μA |
| Emitter Cutoff Current | $V_{EB}=5\text{V}, I_C=0$ | I_{EBO} | -- | -- | 0.1 | μA |
| Collector-Base Breakdown Voltage | $I_E=0, I_C=100\mu\text{A}$ | $V_{(BR)CBO}$ | 40 | -- | -- | V |
| Collector-Emitter Breakdown Voltage | $I_E=0, I_C=10\text{mA}$ | $V_{(BR)CEO}$ | 25 | -- | -- | V |
| Emitter Cutoff Current | $I_C=0, I_E=100\mu\text{A}$ | $V_{(BR)EBO}$ | 5 | -- | -- | V |
| DC Current Gain | $I_C=100\text{mA}, V_{CE}=1\text{V}$ | $h_{FE} (1)$ | 85 | -- | 400 | |
| | $I_C=500\text{mA}, V_{CE}=1\text{V}$ | h_{FE} | 40 | -- | -- | |
| Collector-Emitter Saturation Voltage | $I_C=500\text{mA}, I_B=50\text{mA}$ | $V_{CE(sat)}$ | -- | -- | 0.6 | V |
| Base-Emitter Voltage | $V_{CE}=1\text{V}, I_C=10\text{mA}$ | $V_{CE(sat)}$ | -- | 0.8 | 1.0 | V |
| Current-Gain-Bandwidth Product | $V_{CE}=5\text{V}, I_C=10\text{mA}$ | f_T | 100 | 120 | -- | MHz |
| Collector Output Capacitance | $V_{CB}=10\text{V}, I_E=0, f=1\text{MHz}$ | C_{ob} | -- | 13 | 30 | pF |

■ DIMENSION

单位 (UNIT) : mm

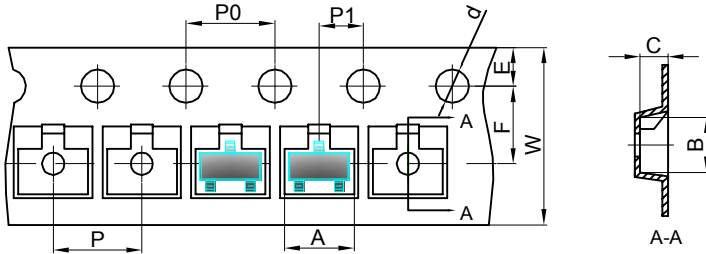


| 序号 | 数值及公差 |
|----|-----------|
| A | 2.90±0.10 |
| B | 1.30±0.10 |
| C | 1.00±0.10 |
| D | 0.40±0.10 |
| E | 2.40±0.20 |
| G | 1.90±0.10 |
| H | 0.95±0.05 |
| J | 0.13±0.05 |
| K | 0.00-0.10 |
| M | ≥0.20 |
| N | 0.60±0.10 |
| P | 7±2° |

Packing
SOT-23 包装规格
SMD片式表面贴封装
包装方式: 载带卷盘包装
Tape & Reel, 3Kpcs/Reel
每卷数量3000只 (3Kpcs/Reel)
每盒数量45000只 (45Kpcs/BOX)
每箱数量180000只 (180Kpcs/Cartons)

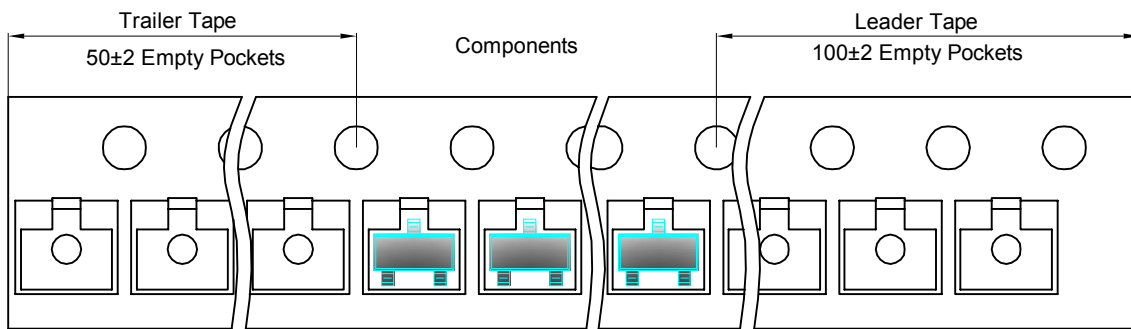
SOT-23 Tape and reel

SOT-23 Embossed Carrier Tape

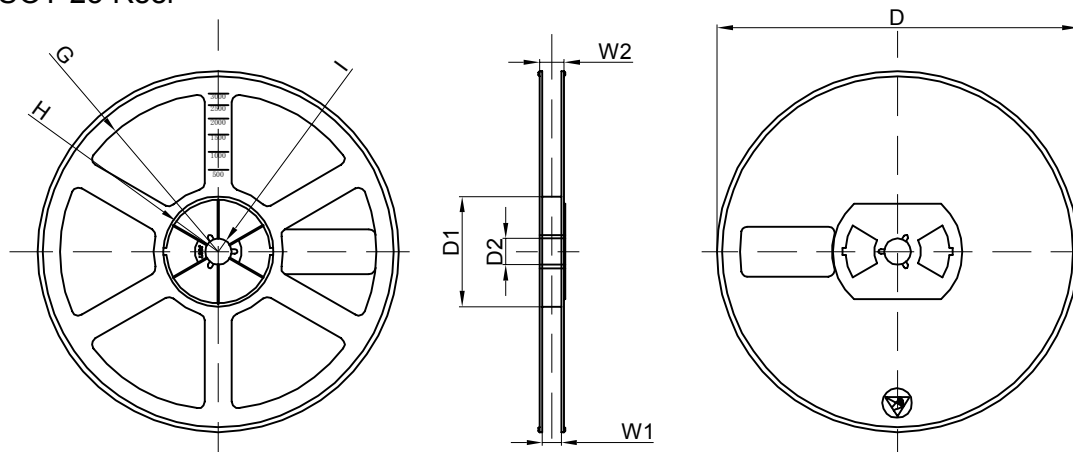


| Dimensions are in millimeter | | | | | | | | | | |
|------------------------------|------|------|------|-------|------|------|------|------|------|------|
| Pkg type | A | B | C | d | E | F | P0 | P | P1 | W |
| SOT-23 | 3.15 | 2.77 | 1.22 | Ø1.50 | 1.75 | 3.50 | 4.00 | 4.00 | 2.00 | 8.00 |

SOT-23 Tape Leader and Trailer



SOT-23 Reel



| Dimensions are in millimeter | | | | | | | | |
|------------------------------|---------|-------|-------|--------|--------|-------|------|-------|
| Reel Option | D | D1 | D2 | G | H | I | W1 | W2 |
| 7" Dia | Ø178.00 | 54.40 | 13.00 | R78.00 | R25.60 | R6.50 | 9.50 | 12.30 |

| REEL | Reel Size | Box | Box Size(mm) | Carton | Carton Size(mm) | G.W.(kg) |
|----------|-----------|------------|--------------|-------------|-----------------|----------|
| 3000 pcs | 7 inch | 45,000 pcs | 192×192×193 | 180,000 pcs | 404×404×214 | |