

isc Silicon PNP Power Transistor

2SB1275

DESCRIPTION

- Suitable for middle power drivers
- High voltage: $V_{CEO} = -160V$
- Complementary NPN types: 2SD1918
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

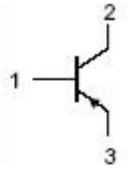
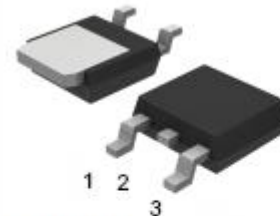
APPLICATIONS

- Motor drivers, LED driver, Power supply

ABSOLUTE MAXIMUM RATINGS($T_a = 25^\circ C$)

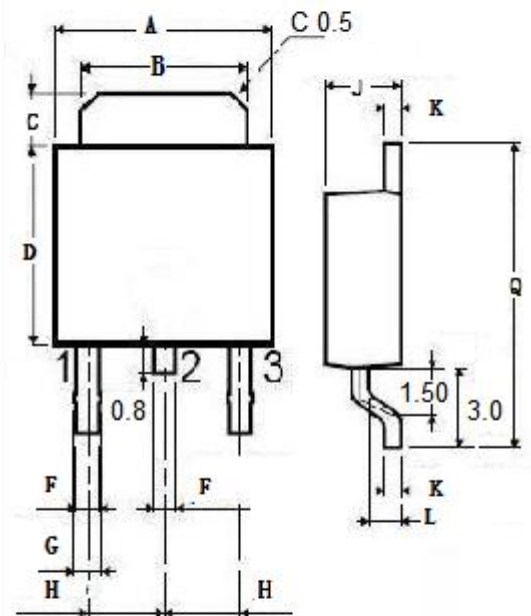
| SYMBOL | PARAMETER | VALUE | UNIT |
|-----------|---|---------|------------|
| V_{CBO} | Collector-Base Voltage | -160 | V |
| V_{CEO} | Collector-Emitter Voltage | -160 | V |
| V_{EBO} | Emitter-Base Voltage | -5 | V |
| I_C | Collector Current-Continuous | -1.5 | A |
| I_{CM} | Collector Current-Peak | -3.0 | A |
| P_C | Collector Power Dissipation @ $T_C = 25^\circ C$ | 10 | W |
| T_J | Junction Temperature | 150 | $^\circ C$ |
| T_{stg} | Storage Temperature Range | -55~150 | $^\circ C$ |

DPAK



PIN: 1. BASE
2. COLLECTOR
3. EMITTER

TO-252 package



| DIM | mm | |
|-----|------|------|
| | MIN | MAX |
| A | 6.40 | 6.60 |
| B | 5.20 | 5.40 |
| C | 1.15 | 1.35 |
| D | 5.70 | 6.10 |
| F | 0.65 | |
| G | 0.75 | |
| H | 2.10 | 2.50 |
| J | 2.10 | 2.40 |
| K | 0.40 | 0.60 |
| L | 0.90 | 1.10 |
| Q | 9.90 | 10.1 |

isc Silicon PNP Power Transistor**2SB1275****ELECTRICAL CHARACTERISTICS****T_C=25°C unless otherwise specified**

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP. | MAX | UNIT |
|----------------------|--------------------------------------|---|------|------|------|------|
| BV _{CBO} | Collector-Base breakdown voltage | I _C =-50uA | -160 | | | V |
| BV _{CEO} | Collector-Emitter breakdown voltage | I _C =-1mA | -160 | | | V |
| BV _{EBO} | Emitter-Base breakdown voltage | I _E =-50uA | -5 | | | V |
| V _{CE(sat)} | Collector-Emitter Saturation Voltage | I _C = -1A; I _B = -100mA | | | -2.0 | V |
| V _{BE(sat)} | Base-Emitter Saturation Voltage | I _C = -1A; I _B = -100mA | | | -1.5 | V |
| I _{CBO} | Collector Cutoff Current | V _{CB} = -120V; I _E = 0 | | | -1.0 | μ A |
| I _{EBO} | Emitter Cutoff Current | V _{EB} = -4V; I _C = 0 | | | -1.0 | μ A |
| h _{FE} | DC Current Gain | I _C = -0.1A; V _{CE} = -5V | 56 | | 180 | |
| C _{OB} | Output Capacitance | I _E = 0; V _{CB} = -10V; f= 1.0MHz | | 30 | | pF |
| f _T | Current-Gain—Bandwidth Product | I _C = -0.1A; V _{CE} = -10V, f= 100MHz | | 50 | | MHz |

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