

isc Silicon PNP Power Transistor
2SB1019
DESCRIPTION

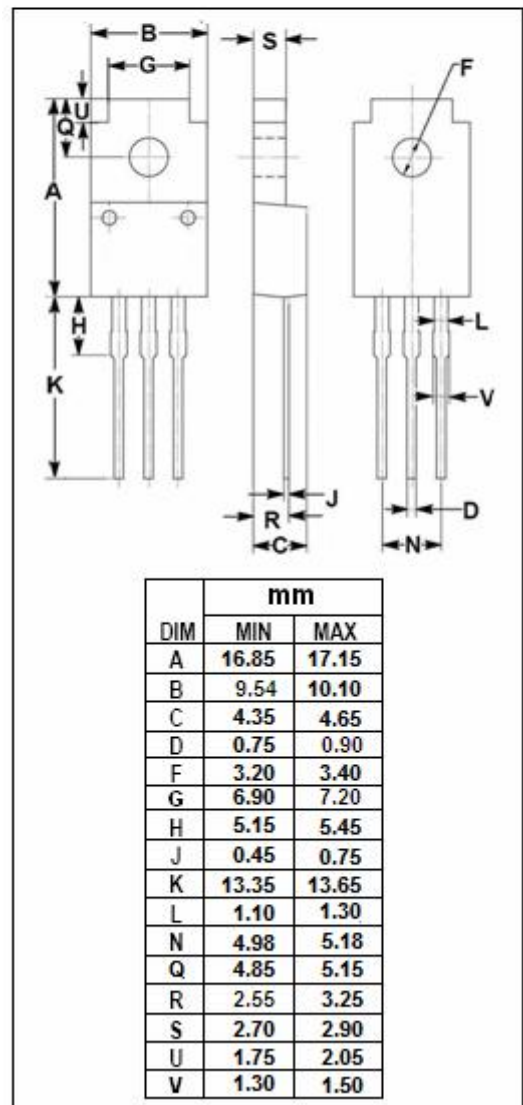
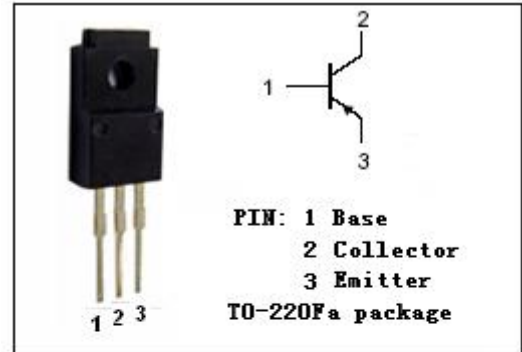
- Low Collector Saturation Voltage-
: $V_{CE(sat)} = -0.4V(\text{Max}) @ I_C = -4A$
- Good Linearity of h_{FE}
- Complement to Type 2SD1412
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- High current switching applications.
- Power amplifier applications.

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

| SYMBOL | PARAMETER | VALUE | UNIT |
|-----------|--|---------|------------------|
| V_{CBO} | Collector-Base Voltage | -70 | V |
| V_{CEO} | Collector-Emitter Voltage | -50 | V |
| V_{EBO} | Emitter-Base Voltage | -5 | V |
| I_C | Collector Current-Continuous | -7 | A |
| I_B | Base Current-Continuous | -1 | A |
| P_C | Collector Power Dissipation @ $T_a = 25^\circ\text{C}$ | 2 | W |
| | Collector Power Dissipation @ $T_c = 25^\circ\text{C}$ | 30 | |
| T_J | Junction Temperature | 150 | $^\circ\text{C}$ |
| T_{stg} | Storage Temperature Range | -55~150 | $^\circ\text{C}$ |



isc Silicon PNP Power Transistor**2SB1019****ELECTRICAL CHARACTERISTICS****T_c=25°C unless otherwise specified**

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP. | MAX | UNIT |
|----------------------|--------------------------------------|--|-----|------|------|------|
| V _{(BR)CEO} | Collector-Emitter Breakdown Voltage | I _C = -30mA; I _B = 0 | -50 | | | V |
| V _{CE(sat)} | Collector-Emitter Saturation Voltage | I _C = -4A; I _B = -0.4A | | | -0.4 | V |
| V _{BE(sat)} | Base-Emitter Saturation Voltage | I _C = -4A; I _B = -0.4A | | | -1.2 | V |
| I _{CBO} | Collector Cutoff Current | V _{CB} = -70V; I _E = 0 | | | -30 | μ A |
| I _{EBO} | Emitter Cutoff Current | V _{EB} = -5V; I _C = 0 | | | -50 | μ A |
| h _{FE-1} | DC Current Gain | I _C = -1A; V _{CE} = -1V | 70 | | 240 | |
| h _{FE-2} | DC Current Gain | I _C = -4A; V _{CE} = -1V | 30 | | | |

◆ h_{FE-1} Classifications

| | |
|--------|---------|
| O | Y |
| 70-140 | 120-240 |

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