

isc Silicon PNP Power Transistor

2SA2169

DESCRIPTION

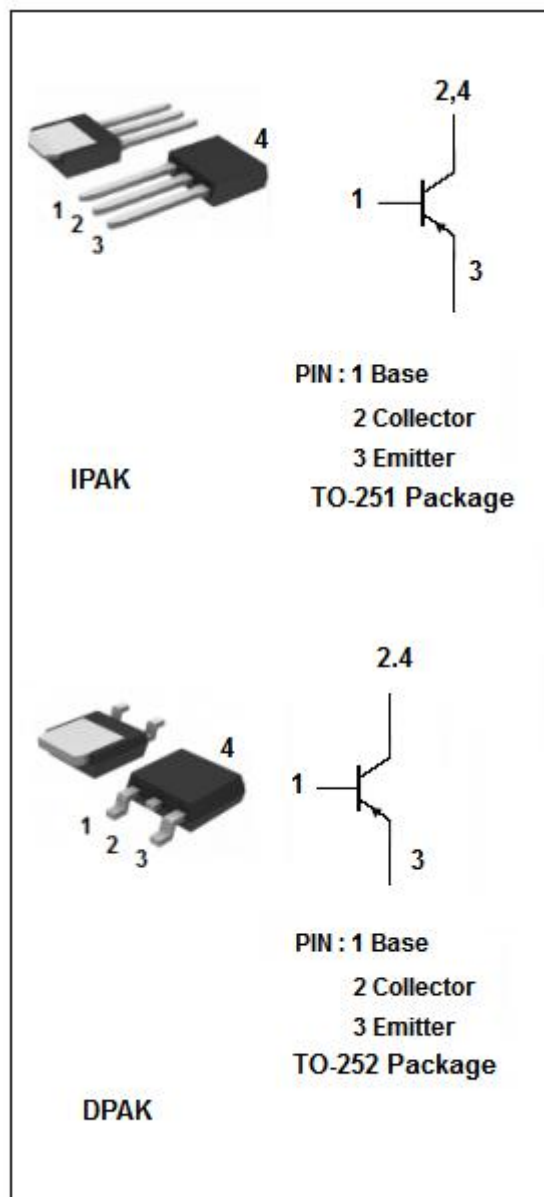
- Large current capacitance
- High-speed switching
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation
- Complementary to 2SC6017

APPLICATIONS

- relay drivers, lamp drivers, motor drivers

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

| SYMBOL | PARAMETER | VALUE | UNIT |
|-----------|---|---------|------------------|
| V_{CBO} | Collector-Base Voltage | -50 | V |
| V_{CEO} | Collector-Emitter Voltage | -50 | V |
| V_{EBO} | Emitter-Base Voltage | -6 | V |
| I_C | Collector Current-Continuous | -10 | A |
| I_{CM} | Collector Current-Peak | -13 | A |
| P_C | Collector Power Dissipation @ $T_c=25^\circ\text{C}$ | 20 | W |
| | Collector Power Dissipation @ $T_a=25^\circ\text{C}$ | 0.95 | |
| T_J | Junction Temperature | 150 | $^\circ\text{C}$ |
| T_{stg} | Storage Temperature Range | -55~150 | $^\circ\text{C}$ |



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ELECTRICAL CHARACTERISTICS

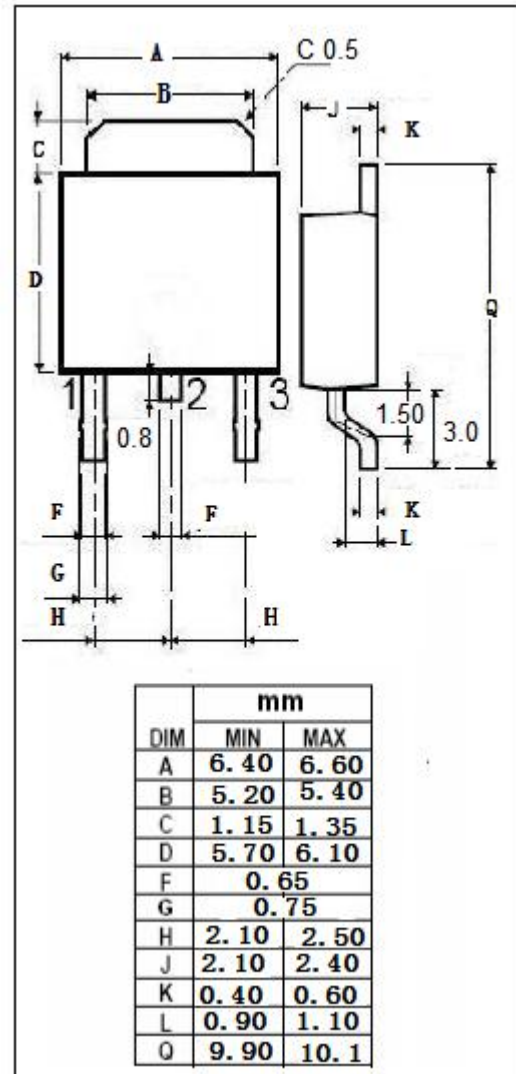
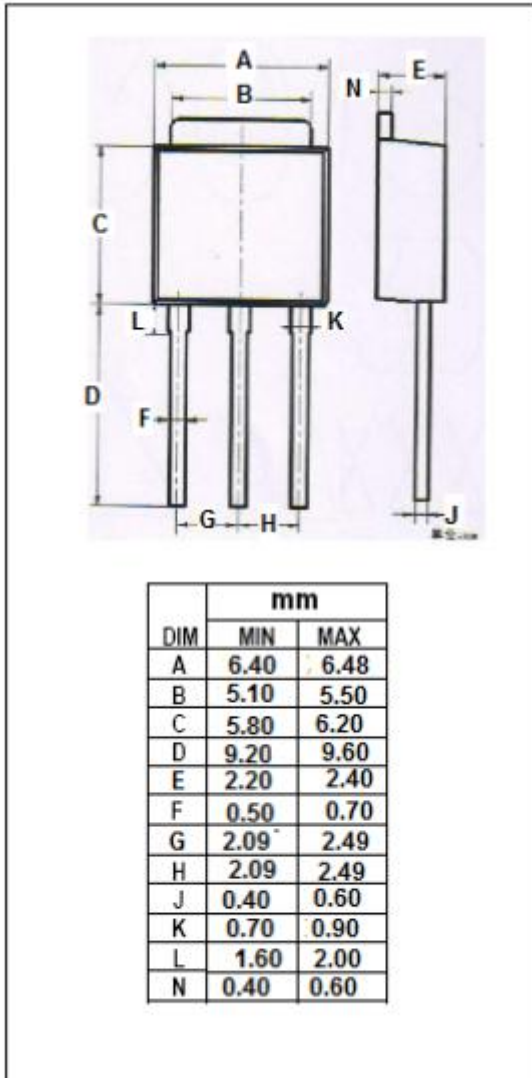
T_c=25°C unless otherwise specified

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP. | MAX | UNIT |
|----------------------|--------------------------------------|---|-----|------|-------|------|
| V _{CE(sat)} | Collector-Emitter Saturation Voltage | I _C = -5A; I _B = -250mA | | | -0.58 | V |
| V _{BE(sat)} | Base-Emitter Saturation Voltage | I _C = -5A; I _B = -250mA | | | -1.4 | V |
| V _{(BR)CEO} | Collector-Emitter Breakdown Voltage | I _C = -1mA; I _B = 0 | -50 | | | V |
| V _{(BR)EBO} | Emitter-Base Breakdown Voltage | I _E = -100uA; I _C = 0 | -6 | | | V |
| I _{CBO} | Collector Cutoff Current | V _{CB} = -40V; I _E = 0 | | | -10 | μ A |
| I _{EBO} | Emitter Cutoff Current | V _{EB} = -4V; I _C = 0 | | | -10 | μ A |
| h _{FE} | DC Current Gain | I _C = -1A; V _{CE} = -2V | 200 | | 560 | |
| C _{OB} | Output Capacitance | I _E = 0; V _{CB} = -10V; f= 1.0MHz | | 90 | | pF |
| f _T | Current-Gain—Bandwidth Product | I _C = -1A; V _{CE} = -5V | | 130 | | MHz |

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Outline Drawing



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