

isc Silicon NPN Power Transistor

2SD1300

DESCRIPTION

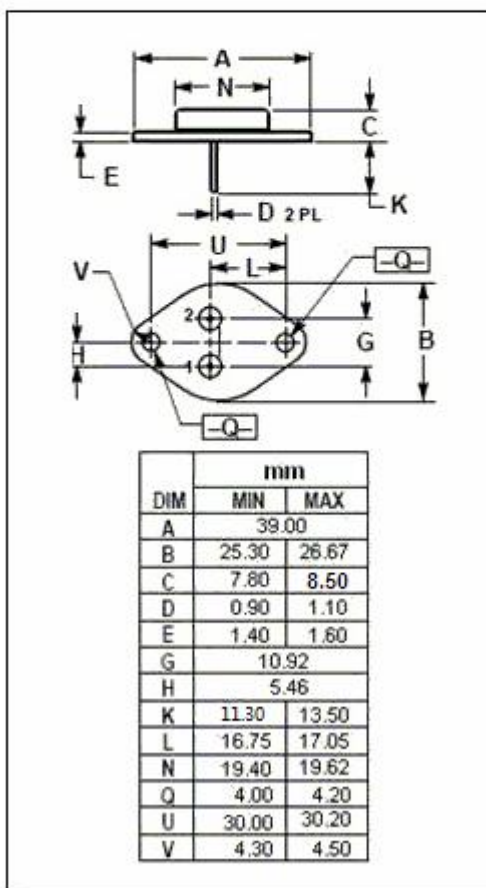
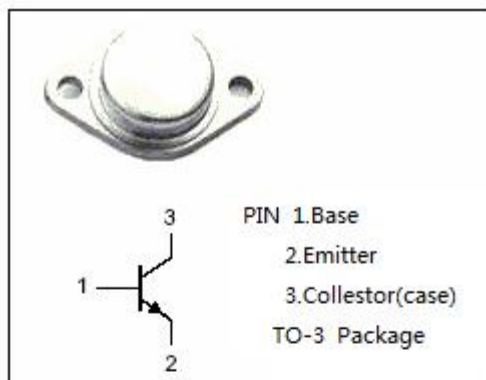
- High Collector-Base Breakdown Voltage-
: $V_{(BR)CBO} = 1500V$ (Min.)
- Low Collector Saturation Voltage-
- High Switching Speed
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for color TV horizontal output applications.

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

| SYMBOL | PARAMETER | MAX | UNIT |
|-----------|--|---------|-------------|
| V_{CBO} | Collector-Base Voltage | 1500 | V |
| V_{CEO} | Collector-Emitter Voltage | 600 | V |
| V_{EBO} | Emitter-Base Voltage | 5 | V |
| I_C | Collector Current-Continuous | 3.0 | A |
| I_E | Emitter Current-Continuous | 3.0 | A |
| P_C | Collector Power Dissipation @ $T_c=25^{\circ}C$ | 50 | W |
| T_j | Junction Temperature | 150 | $^{\circ}C$ |
| T_{stg} | Storage Temperature Range | -65~150 | $^{\circ}C$ |



isc Silicon NPN Power Transistor**2SD1300****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 = 3A; I _B = 0.8A | | | 5.0 | V |
| V _{BE(sat)} | Base-Emitter Saturation Voltage | I _C = 3A; I _B = 0.8A | | | 1.5 | V |
| I _{CBO} | Collector Cutoff Current | V _{CB} = 1000V; I _E = 0 | | | 10 | μ A |
| I _{EBO} | Emitter Cutoff Current | V _{EB} = 5V; I _C = 0 | | | 1.0 | mA |
| h _{FE} | DC Current Gain | I _C = 0.5A; V _{CE} = 5V | 8 | | | |
| C _{OB} | Output Capacitance | I _E = 0; V _{CB} = 10V; f _{test} = 1.0MHz | | 95 | | pF |
| f _T | Current-Gain—Bandwidth Product | I _C = 0.1A; V _{CE} = 10V | | 3 | | MHz |
| t _f | Fall Time | I _{CP} = 3A; I _{B1(end)} = 0.8A | | | 1.0 | μ s |

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