

isc Silicon NPN Power Transistor

2SD1171

DESCRIPTION

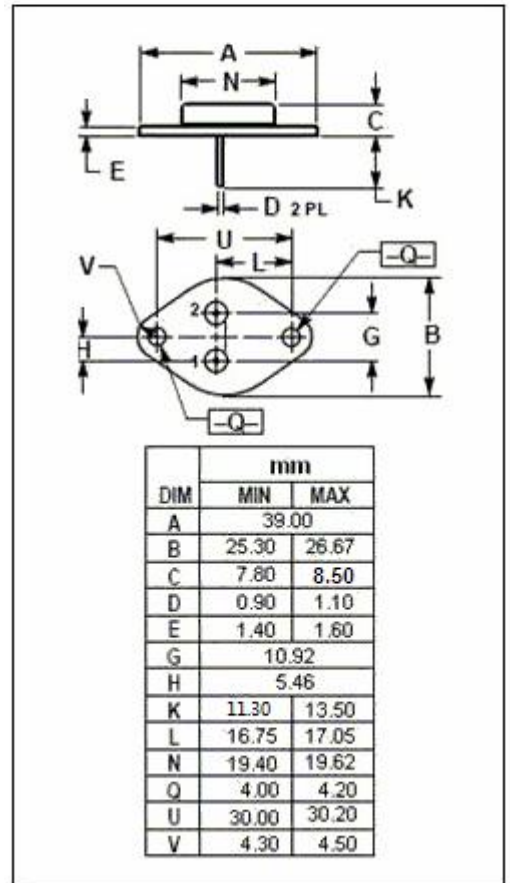
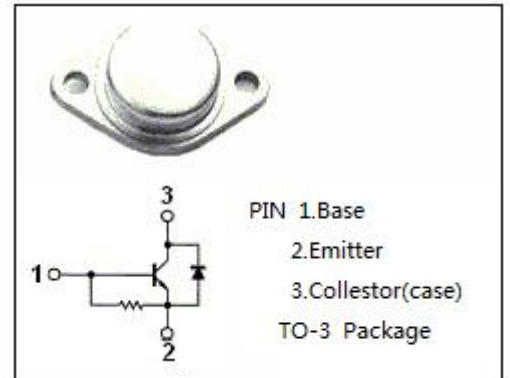
- High Breakdown Voltage-
: $V_{CBO} = 1500V$ (Min)
- Collector-Emitter Saturation Voltage-
: $V_{CE(sat)} = 4.0V$ (Max.) @ $I_C = 2.0A$
- Built-in Damper Diode
- Wide area of safe operation
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for horizontal deflection output applications.

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

| SYMBOL | PARAMETER | VALUE | UNIT |
|-----------|---|---------|------------|
| V_{CBO} | Collector-Base Voltage | 1500 | V |
| V_{CES} | Collector- Emitter Voltage($V_{BE} = 0$) | 1500 | V |
| V_{EBO} | Emitter-Base Voltage | 6 | V |
| I_C | Collector Current- Continuous | 3 | A |
| I_{CP} | Collector Current- Peak | 4.5 | A |
| P_C | Collector Power Dissipation @ $T_C = 25^\circ C$ | 50 | W |
| T_J | Junction Temperature | 130 | $^\circ C$ |
| T_{stg} | Storage Temperature Range | -65~130 | $^\circ C$ |



isc Silicon NPN Power Transistor**2SD1171****ELECTRICAL CHARACTERISTICS****T_C=25°C unless otherwise specified**

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP. | MAX | UNIT |
|----------------------|--------------------------------------|---|-----|------|-----|------|
| V _{(BR)EBO} | Emitter-Base Breakdown Voltage | I _E = 500mA; I _C = 0 | 5 | | | V |
| V _{CE(sat)} | Collector-Emitter Saturation Voltage | I _C = 2.0A; I _B = 0.75A | | | 4.0 | V |
| V _{BE(sat)} | Base-Emitter Saturation Voltage | I _C = 2.0A; I _B = 0.75A | | | 1.5 | V |
| I _{CBO} | Collector Base Cutoff Current | V _{CB} =750V; I _E = 0 | | | 50 | uA |
| | | V _{CB} =1500V; I _E = 0 | | | 1 | mA |
| h _{FE} | DC Current Gain | I _C = 2A; V _{CE} = 10V | 4 | | 15 | |
| V _{ECF} | C-E Diode Forward Voltage | I _F = 4A | | | 2.5 | V |

Switching Times

| | | | | | | |
|------------------|--------------|--|--|--|-----|-----|
| t _{stg} | Storage Time | I _C = 2.5A, I _{B1} = I _{B2} = 0.75A | | | 10 | μ s |
| t _f | Fall Time | | | | 0.8 | μ s |

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