

isc Silicon NPN Power Transistor

2SD1653

DESCRIPTION

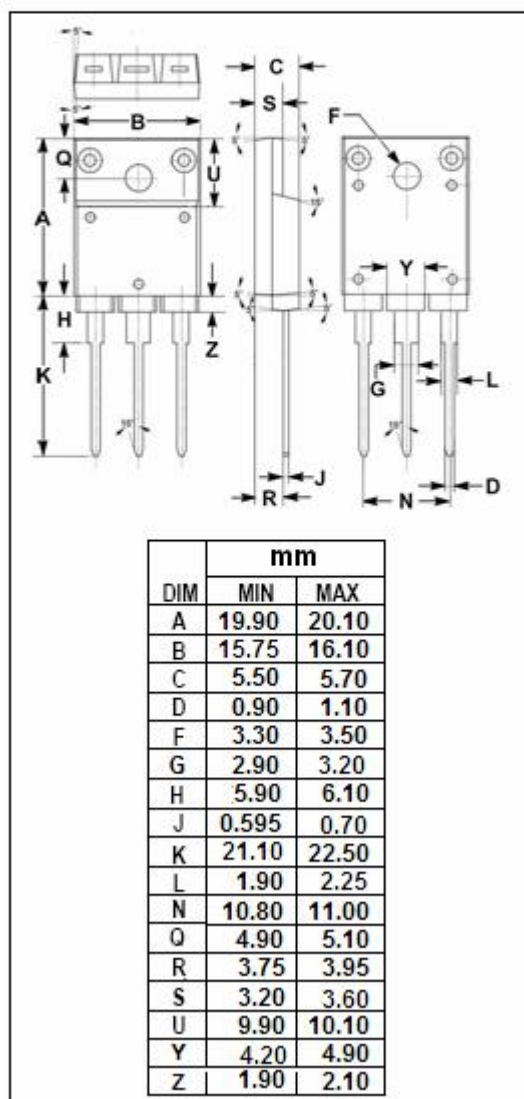
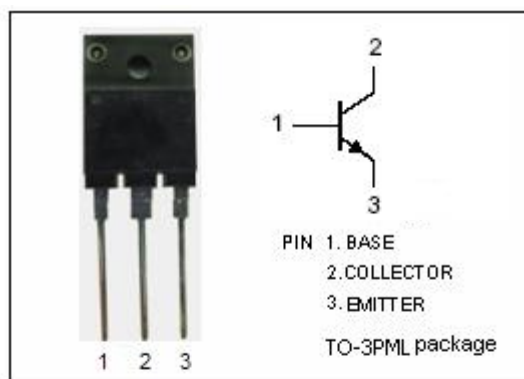
- High Breakdown Voltage-
: $V_{CBO} = 1500V$ (Min)
- High Switching Speed
- High Reliability
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Color TV horizontal deflection output applications.

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

| SYMBOL | PARAMETER | VALUE | UNIT |
|-----------|---|---------|------------|
| V_{CBO} | Collector-Base Voltage | 1500 | V |
| V_{CEO} | Collector-Emitter Voltage | 800 | V |
| V_{EBO} | Emitter-Base Voltage | 6 | V |
| I_C | Collector Current- Continuous | 2.5 | A |
| I_{CP} | Collector Current-Pulse | 10 | 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 | -55~150 | $^\circ C$ |



isc Silicon NPN Power Transistor**2SD1653****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 = 10mA; R _{BE} = ∞ | 800 | | | V |
| V _{(BR)CBO} | Collector-Base Breakdown Voltage | I _C = 1mA; I _E = 0 | 1500 | | | V |
| V _{(BR)EBO} | Emitter-Base Breakdown Voltage | I _E = 200mA; I _C = 0 | 7 | | | V |
| V _{CE(sat)} | Collector-Emitter Saturation Voltage | I _C = 2A; I _B = 0.6A | | | 8.0 | V |
| V _{BE(sat)} | Base-Emitter Saturation Voltage | I _C = 2A; I _B = 0.6A | | | 1.5 | V |
| I _{CBO} | Collector Cutoff Current | V _{CB} = 800V ; 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 | | | |
| t _f | Fall Time | I _C = 2A, I _{B1} = 0.6A; I _{B2} = 1.2A | | | 0.4 | μ s |

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