

isc Silicon NPN Power Transistor

BU506A

DESCRIPTION

- High Voltage
- High Switching Speed
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

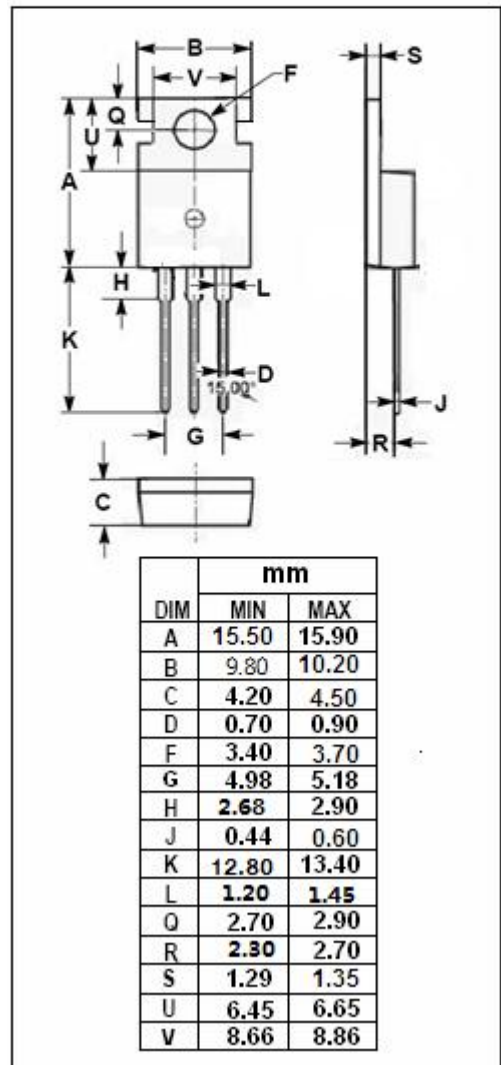
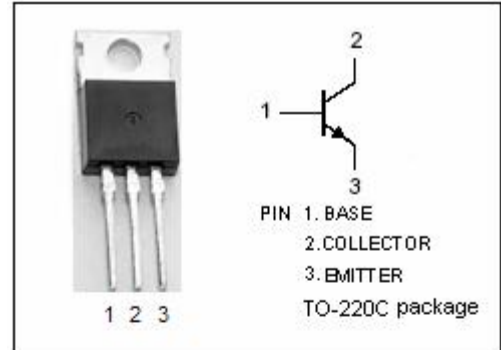
- Designed for use in horizontal deflection circuits of color TV receivers and in line-operated switch-mode applications

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

| SYMBOL | PARAMETER | VALUE | UNIT |
|-----------|---|---------|--------------------|
| V_{CES} | Collector-Emitter Voltage- $V_{BE}=0$ | 1350 | V |
| V_{CEO} | Collector-Emitter Voltage | 700 | V |
| V_{EBO} | Emitter-Base Voltage | 6 | V |
| I_C | Collector Current-Continuous | 5 | A |
| I_{CM} | Collector Current-Peak | 8 | A |
| I_B | Base Current-Continuous | 3 | A |
| I_{BM} | Base Current-Peak | 5 | A |
| P_C | Collector Power Dissipation @ $T_C=25^{\circ}\text{C}$ | 80 | W |
| T_J | Junction Temperature | 150 | $^{\circ}\text{C}$ |
| T_{stg} | Storage Temperature Range | -65~150 | $^{\circ}\text{C}$ |

THERMAL CHARACTERISTICS

| SYMBOL | PARAMETER | MAX | UNIT |
|---------------|--------------------------------------|------|-----------------------------|
| $R_{th\ j-c}$ | Thermal Resistance, Junction to Case | 1.56 | $^{\circ}\text{C}/\text{W}$ |



isc Silicon NPN Power Transistor**BU506A****ELECTRICAL CHARACTERISTICS**T_C=25°C unless otherwise specified

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP. | MAX | UNIT |
|-----------------------|--------------------------------------|--|------|------|----------|------|
| V _{CEO(SUS)} | Collector-Emitter Sustaining Voltage | I _C = 30mA ; I _B = 0 | 700 | | | V |
| V _{CE(sat)} | Collector-Emitter Saturation Voltage | I _C = 3A; I _B = 1.33A | | | 5.0 | V |
| V _{BE(sat)} | Base-Emitter Saturation Voltage | I _C = 3A; I _B = 1.33A | | | 1.3 | V |
| I _{CES} | Collector Cutoff Current | V _{CE} = V _{CESmax} ; V _{BE} = 0 V _{CE} = V _{CESmax} ; V _{BE} = 0; T _J = 125°C | | | 0.5 1 | mA |
| I _{EBO} | Emitter Cutoff Current | V _{EB} = 6V; I _C = 0 | | | 1 | mA |
| h _{FE} | DC Current Gain | I _C = 3A ; V _{CE} = 5V | 2.25 | | | |

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