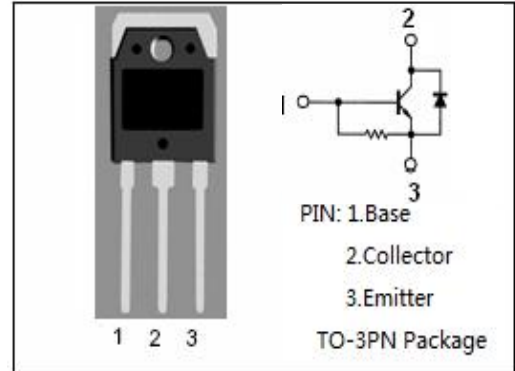


isc Silicon NPN Power Transistor
BU508DR
DESCRIPTION

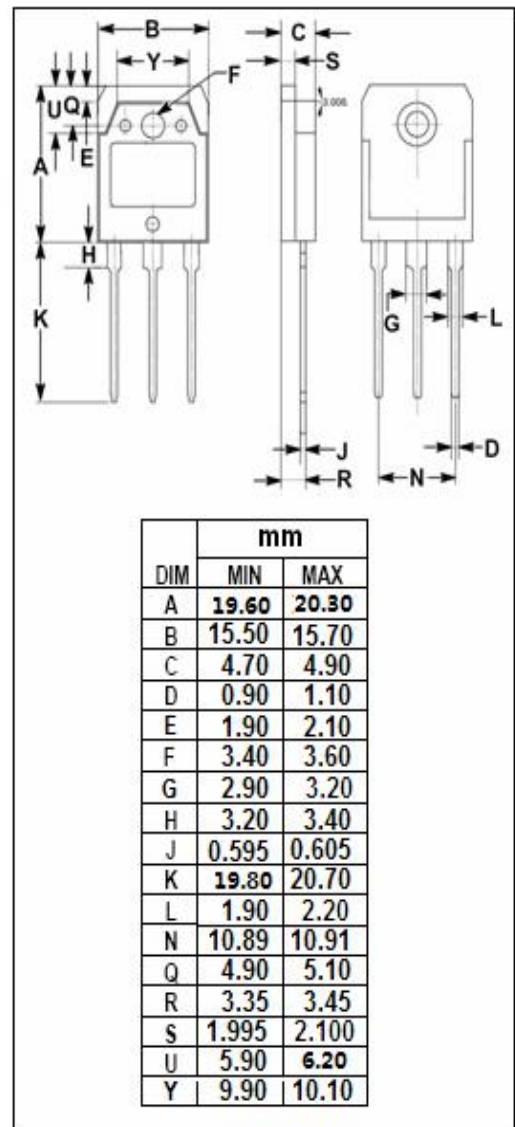
- High Voltage Capability
- High Current Capability
- Fast Switching Speed
- Built-in Integrated Diode
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for use in large screen color deflection circuits .


ABSOLUTE MAXIMUM RATINGS(T_a=25°C)

| SYMBOL | PARAMETER | VALUE | UNIT |
|------------------|--|---------|------|
| V _{CES} | Collector-Emitter Voltage | 1500 | V |
| V _{CEO} | Collector-Emitter Voltage | 700 | V |
| V _{EBO} | Emitter-Base Voltage | 7 | V |
| I _C | Collector Current-Continuous | 8.0 | A |
| I _{CM} | Collector Current-Peak | 15 | A |
| I _B | Base Current-Continuous | 4 | A |
| I _{BM} | Base Current-Peak | 6 | A |
| P _C | Collector Power Dissipation @T _C =25°C | 125 | W |
| T _J | Junction Temperature | 150 | °C |
| T _{stg} | Storage Temperature | -65~150 | °C |


THERMAL CHARACTERISTICS

| SYMBOL | PARAMETER | MAX | UNIT |
|---------------------|--------------------------------------|-----|------|
| R _{th j-c} | Thermal Resistance, Junction to Case | 1.0 | °C/W |

isc Silicon NPN Power Transistor

BU508DR

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 = 50mA; I _B = 0 | 700 | | | V |
| V _{(BR)EBO} | Emitter-Base Breakdown Voltage | I _E = 100mA; I _C = 0 | 5 | | | V |
| V _{CE(sat)} | Collector-Emitter Saturation Voltage | I _C = 4.5A; I _B = 1.6A | | | 1.0 | V |
| V _{BE(sat)} | Base-Emitter Saturation Voltage | I _C = 4.5A; I _B = 2A | | | 1.5 | V |
| I _{CES} | Collector Cutoff Current | V _{CE} = 1500V; V _{BE} = 0 V _{CE} = 1500V; V _{BE} = 0; T _C = 125°C | | | 0.5 2.0 | mA |
| h _{FE-1} | DC Current Gain | I _C = 2.5A; V _{CE} = 5V | 4.5 | | | |
| h _{FE-2} | DC Current Gain | I _C = 4.5A; V _{CE} = 5V | | 3.2 | | |
| f _T | Current-Gain—Bandwidth Product | I _C = 0.1A; V _{CE} = 5V | | 7 | | MHz |
| V _{ECF} | C-E Diode Forward Voltage | I _F = 4.0A | | | 1.5 | V |
| C _{OB} | Output Capacitance | I _E =0; V _{CB} = 10V; f _{test} = 1MHz | | 125 | | pF |

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