

isc Silicon NPN Power Transistor

BU211

DESCRIPTION

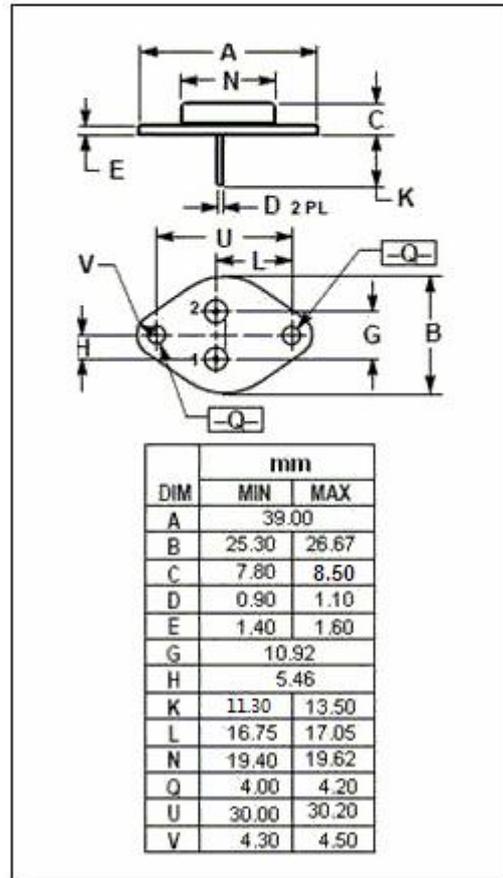
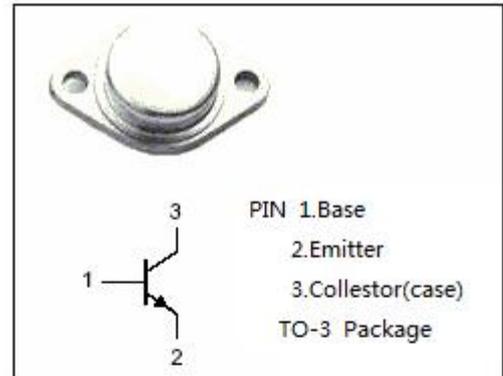
- High Collector-Base Breakdown Voltage-
: $V_{(BR)CBO} = 600V$ (Min)
- High Current Capability
- High Switching Speed
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for TV horizontal output and high power switching applications.

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

| SYMBOL | PARAMETER | MAX | UNIT |
|-----------|---|---------|------------|
| V_{CBO} | Collector-Base Voltage | 600 | V |
| V_{CEO} | Collector-Emitter Voltage | 300 | V |
| V_{EBO} | Emitter-Base Voltage | 8 | V |
| I_C | Collector Current-Continuous | 12 | A |
| I_{CM} | Collector Current-Peak | 15 | A |
| P_C | Collector Power Dissipation @ $T_c=25^\circ C$ | 85 | W |
| T_j | Junction Temperature | 150 | $^\circ C$ |
| T_{stg} | Storage Temperature Range | -65~150 | $^\circ C$ |



ELECTRICAL CHARACTERISTICS $T_C=25^{\circ}\text{C}$ unless otherwise specified

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP. | MAX | UNIT |
|---------------|--------------------------------------|--|-----|------|-----|---------------|
| $V_{(BR)CEO}$ | Collector-Emitter Breakdown Voltage | $I_C= 50\text{mA}; I_B= 0$ | 300 | | | V |
| $V_{(BR)CBO}$ | Collector-Base Breakdown Voltage | $I_C= 1\text{mA}; I_E= 0$ | 600 | | | V |
| $V_{(BR)EBO}$ | Emitter-Base Breakdown Voltage | $I_E= 1\text{mA}; I_C= 0$ | 8 | | | V |
| $V_{CE(sat)}$ | Collector-Emitter Saturation Voltage | $I_C= 8\text{A}; I_B= 2.5\text{A}$ | | | 2.0 | V |
| $V_{BE(sat)}$ | Base-Emitter Saturation Voltage | $I_C= 8\text{A}; I_B= 2.5\text{A}$ | | | 2.2 | V |
| I_{CBO} | Collector Cutoff Current | $V_{CB}= 600\text{V}; I_E= 0$ | | | 0.1 | mA |
| I_{EBO} | Emitter Cutoff Current | $V_{EB}= 8\text{V}; I_C= 0$ | | | 0.1 | mA |
| h_{FE} | DC Current Gain | $I_C= 8\text{A}; V_{CE}= 5\text{V}$ | 5 | | | |
| f_T | Current-Gain—Bandwidth Product | $I_C= 0.5\text{A}; V_{CE}= 10\text{V}$ | | 6 | | MHz |
| t_f | Fall Time | $I_C= 8\text{A}; I_{B1}= -I_{B2}= 2.5\text{A}$ | | | 1.0 | μs |

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