

isc Silicon NPN Power Transistor
3DD5606
DESCRIPTION

- High breakdown voltage
- High switching speed
- High current capability
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

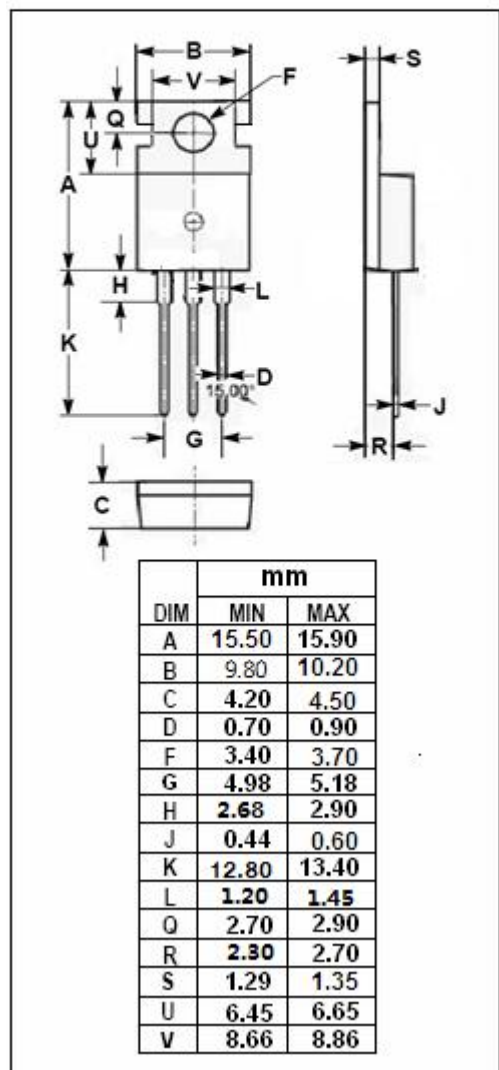
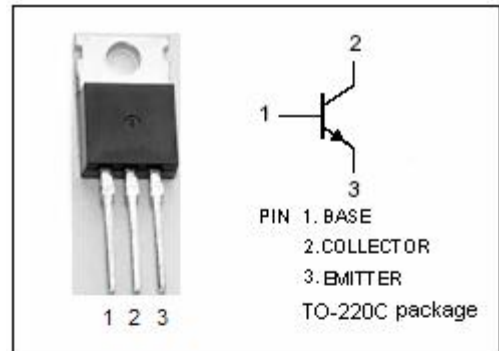
- Energy-saving light
- Electronic ballasts
- High frequency switching power supply
- High frequency power transform

ABSOLUTE MAXIMUM RATINGS(T_a=25°C)

| SYMBOL | PARAMETER | VALUE | UNIT |
|------------------|---|---------|------|
| V _{CEV} | Collector-Emitter Voltage | 1600 | V |
| V _{CEO} | Collector-Emitter Voltage | 800 | V |
| V _{EBO} | Emitter-Base Voltage | 9 | V |
| I _c | Collector Current-Continuous | 6 | A |
| I _{CM} | Collector Current-peak | 10 | A |
| I _B | Base Current | 3 | A |
| P _C | Collector Power Dissipation T _C =25°C | 60 | W |
| T _i | Junction Temperature | 150 | °C |
| T _{stg} | Storage Temperature Range | -55~150 | °C |

THERMAL CHARACTERISTICS

| SYMBOL | PARAMETER | MAX | UNIT |
|---------------------|--------------------------------------|------|------|
| R _{th j-c} | Thermal Resistance, Junction to Case | 2.08 | °C/W |



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 = 1mA; I _B = 0 | 800 | | | V |
| V _{CE(sat)} | Collector-Emitter Saturation Voltage | I _C = 2A ;I _B = 0.4A | | | 1.0 | V |
| V _{BE(sat)} | Base-Emitter Saturation Voltage | I _C = 2A ;I _B = 0.4A | | | 1.2 | V |
| I _{CBO} | Collector Cutoff Current | V _{CB} = 1600V; I _E =0 | | | 0.1 | mA |
| I _{EBO} | Emitter Cutoff Current | V _{EB} = 9V; I _C = 0 | | | 0.01 | mA |
| h _{FE-1} | DC Current Gain | I _C = 1A; V _{CE} = 5V | 20 | | | |
| h _{FE-2} | DC Current Gain | I _C = 0.01A; V _{CE} = 5V | 10 | | | |

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