

isc Silicon NPN Power Transistor
2SD1488
DESCRIPTION

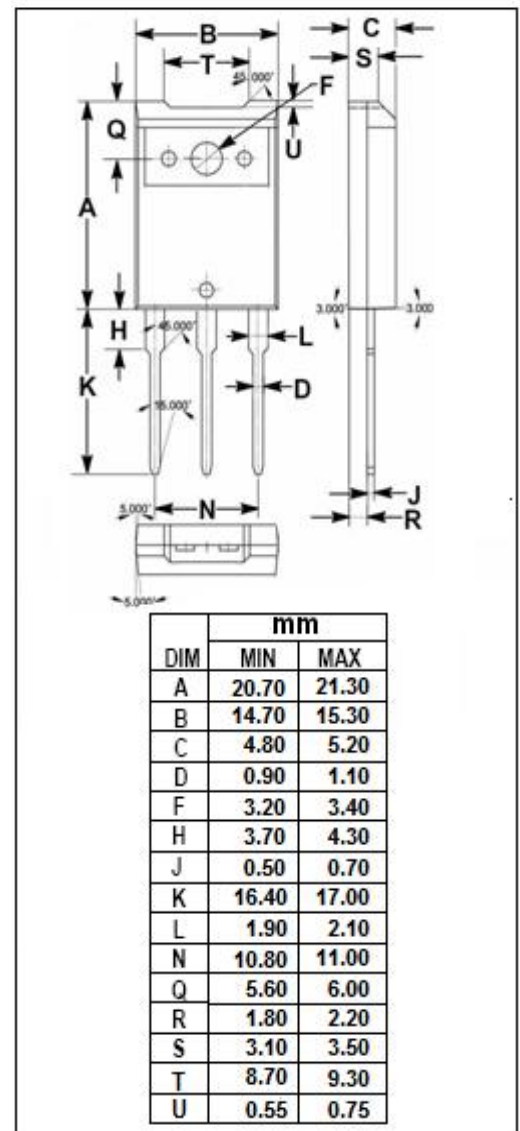
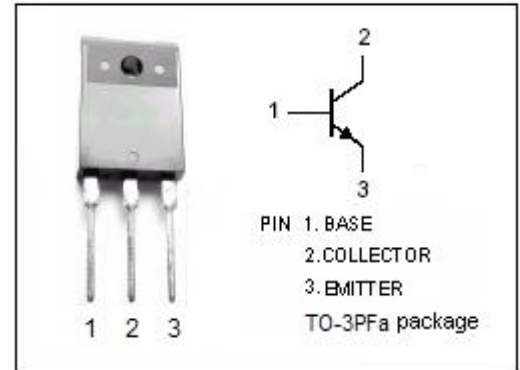
- Low Collector Saturation Voltage-
: $V_{CE(sat)} = 2.0V(\text{Max}) @ I_C = 7A$
- Wide Area of Safe Operation
- Complement to Type 2SB1057
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for high power amplifier applications.

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

| SYMBOL | PARAMETER | VALUE | UNIT |
|-----------|--|---------|------------------|
| V_{CBO} | Collector-Base Voltage | 150 | V |
| V_{CEO} | Collector-Emitter Voltage | 150 | V |
| V_{EBO} | Emitter-Base Voltage | 5 | V |
| I_C | Collector Current-Continuous | 9 | A |
| I_{CM} | Collector Current-Peak | 15 | A |
| P_C | Collector Power Dissipation @ $T_a = 25^\circ\text{C}$ | 3 | W |
| | Collector Power Dissipation @ $T_c = 25^\circ\text{C}$ | 100 | |
| T_J | Junction Temperature | 150 | $^\circ\text{C}$ |
| T_{stg} | Storage Temperature Range | -55~150 | $^\circ\text{C}$ |



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ELECTRICAL CHARACTERISTICS

T_c=25°C unless otherwise specified

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP. | MAX | UNIT |
|----------------------|--------------------------------------|--|-----|------|-----|------|
| V _{CE(sat)} | Collector-Emitter Saturation Voltage | I _C = 7A; I _B = 0.7A | | | 2.0 | V |
| V _{BE(on)} | Base-Emitter On Voltage | I _C = 7A; V _{CE} = 5V | | | 1.8 | V |
| I _{CBO} | Collector Cutoff Current | V _{CB} = 150V; I _E = 0 | | | 50 | μ A |
| I _{EBO} | Emitter Cutoff Current | V _{EB} = 3V; I _C = 0 | | | 50 | μ A |
| h _{FE-1} | DC Current Gain | I _C = 20mA; V _{CE} = 5V | 20 | | | |
| h _{FE-2} | DC Current Gain | I _C = 1A; V _{CE} = 5V | 40 | | 200 | |
| h _{FE-3} | DC Current Gain | I _C = 7A; V _{CE} = 5V | 20 | | | |
| C _{OB} | Output Capacitance | I _E = 0; V _{CB} = 10V; f= 1.0MHz | | 450 | | pF |
| f _T | Current-Gain—Bandwidth Product | I _C = 0.5A; V _{CE} = 10V | | 20 | | MHz |

◆ h_{FE-2} Classifications

| R | Q | P |
|-------|--------|---------|
| 40-80 | 60-120 | 100-200 |

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