

isc Silicon NPN Power Transistor

2SD1488

DESCRIPTION

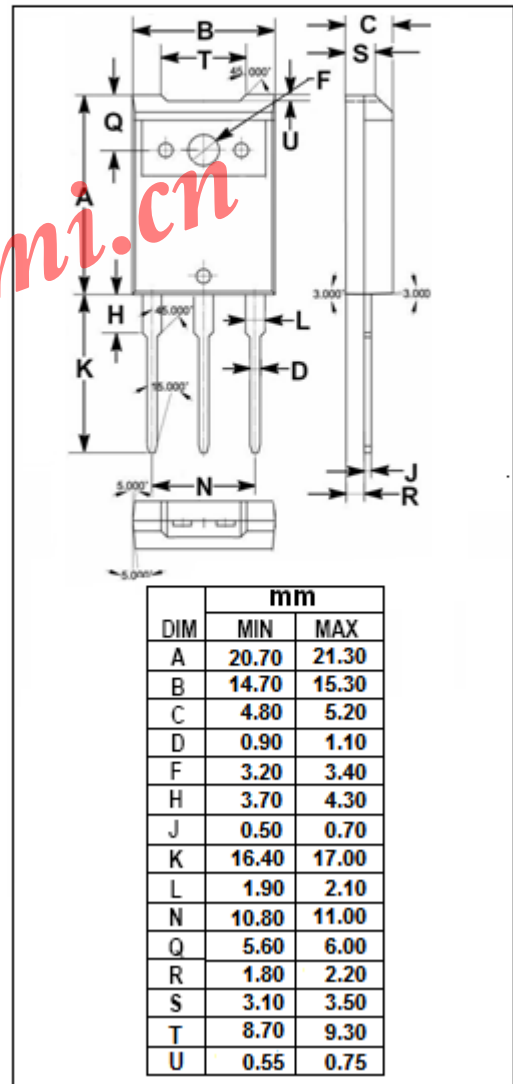
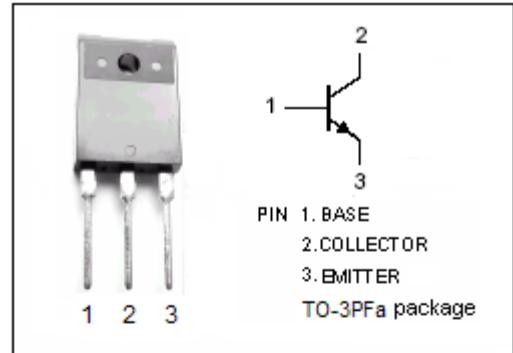
- Low Collector Saturation Voltage-
: $V_{CE(sat)} = 2.0V(Max) @ I_C = 7A$
- Wide Area of Safe Operation
- Complement to Type 2SB1057

APPLICATIONS

- Designed for high power amplifier applications.

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

| 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 @ $T_a=25^{\circ}C$ | 3 | W |
| | Collector Power Dissipation @ $T_c=25^{\circ}C$ | 100 | |
| T_J | Junction Temperature | 150 | $^{\circ}C$ |
| T_{stg} | Storage Temperature Range | -55~150 | $^{\circ}C$ |



isc Silicon NPN Power Transistor**2SD1488****ELECTRICAL CHARACTERISTICS** $T_C=25^{\circ}\text{C}$ unless otherwise specified

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP. | MAX | UNIT |
|---------------|--------------------------------------|---|-----|------|-----|---------------|
| $V_{CE(sat)}$ | Collector-Emitter Saturation Voltage | $I_C=7\text{A}; I_B=0.7\text{A}$ | | | 2.0 | V |
| $V_{BE(on)}$ | Base-Emitter On Voltage | $I_C=7\text{A}; V_{CE}=5\text{V}$ | | | 1.8 | V |
| I_{CBO} | Collector Cutoff Current | $V_{CB}=150\text{V}; I_E=0$ | | | 50 | μA |
| I_{EBO} | Emitter Cutoff Current | $V_{EB}=3\text{V}; I_C=0$ | | | 50 | μA |
| h_{FE-1} | DC Current Gain | $I_C=20\text{mA}; V_{CE}=5\text{V}$ | 20 | | | |
| h_{FE-2} | DC Current Gain | $I_C=1\text{A}; V_{CE}=5\text{V}$ | 40 | | 200 | |
| h_{FE-3} | DC Current Gain | $I_C=7\text{A}; V_{CE}=5\text{V}$ | 20 | | | |
| C_{OB} | Output Capacitance | $I_E=0; V_{CB}=10\text{V}; f=1.0\text{MHz}$ | | 450 | | pF |
| f_T | Current-Gain—Bandwidth Product | $I_C=0.5\text{A}; V_{CE}=10\text{V}$ | | 20 | | MHz |

◆ **h_{FE-2} Classifications**

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