

isc Silicon NPN Power Transistor

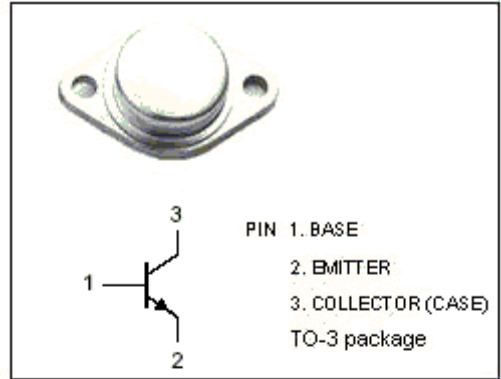
2SC2489

DESCRIPTION

- Good Linearity of h_{FE}
- Collector-Emitter Sustaining Voltage-
: $V_{CEO(SUS)} = 150V$ (Min)
- Wide Area of Safe Operation
- Complement to Type 2SA1065

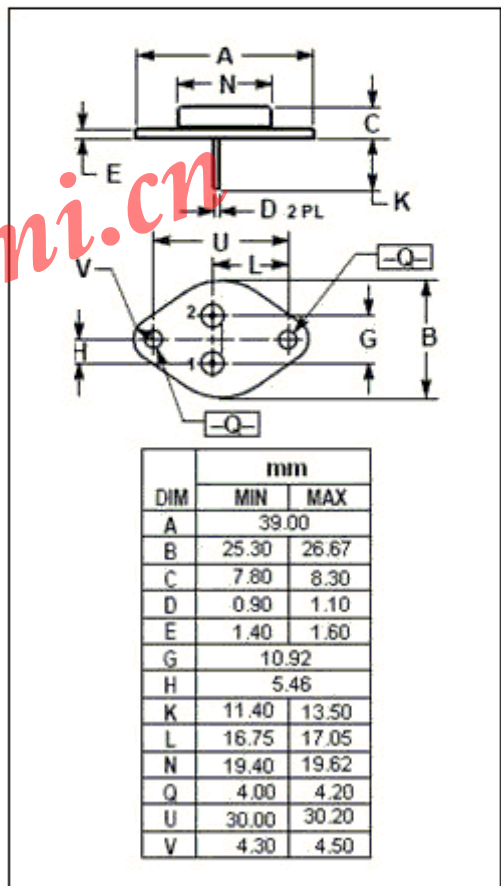
APPLICATIONS

- Designed for AF amplifier, high power amplifier applications.



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

| SYMBOL | PARAMETER | MAX | 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 | 10 | A |
| I_{CM} | Collector Current-Peak | 15 | A |
| P_C | Collector Power Dissipation @ $T_C=25^{\circ}C$ | 120 | W |
| T_j | Junction Temperature | 150 | $^{\circ}C$ |
| T_{stg} | Storage Temperature Range | -65~150 | $^{\circ}C$ |



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ELECTRICAL CHARACTERISTICS

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

| SYMBOL | PARAMETER | CONDITIONS | MIN | TYP. | MAX | UNIT |
|----------------|--------------------------------------|--------------------------------------|-----|------|-----|------|
| $V_{CEO(SUS)}$ | Collector-Emitter Sustaining Voltage | $I_C=0.1\text{A}; I_E=0$ | 150 | | | V |
| $V_{CE(sat)}$ | Collector-Emitter Saturation Voltage | $I_C=8\text{A}; I_B=0.8\text{A}$ | | | 2.0 | V |
| $V_{BE(on)}$ | Base-Emitter On Voltage | $I_C=10\text{A}; V_{CE}=5\text{V}$ | | | 2.5 | V |
| I_{CBO} | Collector Cutoff Current | $V_{CB}=70\text{V}; I_E=0$ | | | 1 | mA |
| I_{EBO} | Emitter Cutoff Current | $V_{EB}=5\text{V}; I_C=0$ | | | 2 | mA |
| h_{FE-1} | DC Current Gain | $I_C=2\text{A}; V_{CE}=5\text{V}$ | | 40 | 280 | |
| h_{FE-2} | DC Current Gain | $I_C=10\text{A}; V_{CE}=5\text{V}$ | | 30 | | |
| f_T | Current-Gain—Bandwidth Product | $I_C=0.5\text{A}; V_{CE}=10\text{V}$ | | 50 | | MHz |

◆ h_{FE-1} Classifications

| R | Q | P | O |
|-------|--------|--------|---------|
| 40-80 | 60-120 | 90-180 | 140-280 |