

isc Silicon NPN Power Transistor

2SD357

DESCRIPTION

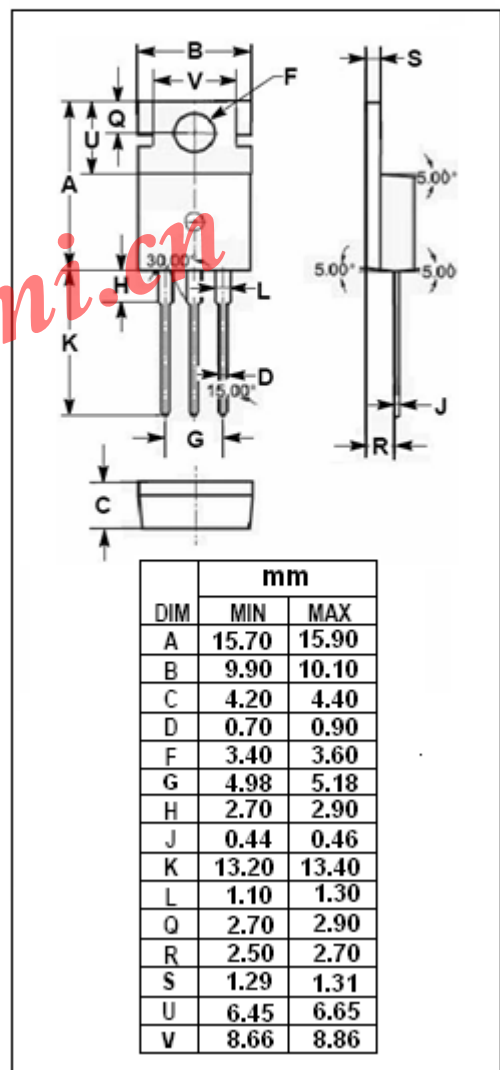
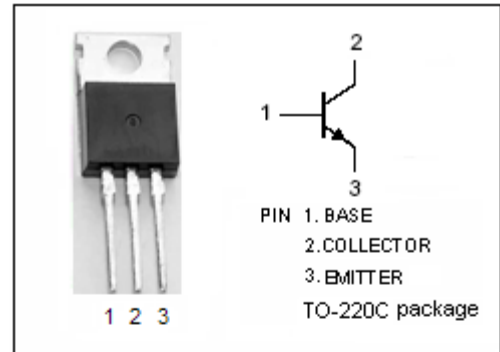
- Collector-Emitter Breakdown Voltage-  
:  $V_{(BR)CEO} = 100V(\text{Min})$
- Good Linearity of  $h_{FE}$
- Complement to Type 2SB527

APPLICATIONS

- Designed for AF high power dirver applications.

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

| SYMBOL    | PARAMETER   | VALUE   | UNIT             |
|-----------|---|---------|------------------|
| $V_{CBO}$ | Collector-Base Voltage                                  | 110     | V                |
| $V_{CEO}$ | Collector-Emitter Voltage                               | 100     | V                |
| $V_{EBO}$ | Emitter-Base Voltage                                    | 5       | V                |
| $I_C$     | Collector Current-Continuous                            | 0.8     | A                |
| $P_C$     | Collector Power Dissipation<br>@ $T_a=25^\circ\text{C}$ | 1       | W                |
|           | Collector Power Dissipation<br>@ $T_C=25^\circ\text{C}$ | 10      |                  |
| $T_J$     | Junction Temperature                                    | 150     | $^\circ\text{C}$ |
| $T_{stg}$ | Storage Temperature Range                               | -55~150 | $^\circ\text{C}$ |



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## ELECTRICAL CHARACTERISTICS

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

| SYMBOL        | PARAMETER                            | CONDITIONS                          | MIN | TYP. | MAX | UNIT          |
|---------------|--------------------------------------|-------------------------------------|-----|------|-----|---------------|
| $V_{(BR)CEO}$ | Collector-Emitter Breakdown Voltage  | $I_C=10\text{mA}; R_{BE}=\infty$    | 100 |      |     | V             |
| $V_{(BR)CBO}$ | Collector-Base Breakdown Voltage     | $I_C=1\text{mA}; I_E=0$             | 110 |      |     | V             |
| $V_{(BR)EBO}$ | Emitter-Base Breakdown Voltage       | $I_E=1\text{mA}; I_C=0$             | 5   |      |     | V             |
| $V_{CE(sat)}$ | Collector-Emitter Saturation Voltage | $I_C=0.3\text{A}; I_B=30\text{mA}$  |     |      | 1.0 | V             |
| $V_{BE(on)}$  | Base-Emitter On Voltage              | $I_C=50\text{mA}; V_{CE}=4\text{V}$ |     | 0.7  |     | V             |
| $I_{CBO}$     | Collector Cutoff Current             | $V_{CB}=25\text{V}; I_E=0$          |     |      | 10  | $\mu\text{A}$ |
| $I_{CEO}$     | Collector Cutoff Current             | $V_{CE}=100\text{V}; R_{BE}=\infty$ |     |      | 1   | mA            |
| $I_{EBO}$     | Emitter Cutoff Current               | $V_{EB}=5\text{V}; I_C=0$           |     |      | 10  | $\mu\text{A}$ |
| $h_{FE}$      | DC Current Gain                      | $I_C=0.3\text{A}; V_{CE}=4\text{V}$ | 55  |      | 300 |               |

◆  $h_{FE}$  Classifications

| C      | D      | E       |
|--------|--------|---------|
| 55-110 | 90-180 | 150-300 |