

isc Silicon NPN Power Transistor

2N3240

DESCRIPTION

- Excellent Safe Operating Area
- Low Collector-Emitter Saturation Voltage
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation.

APPLICATIONS

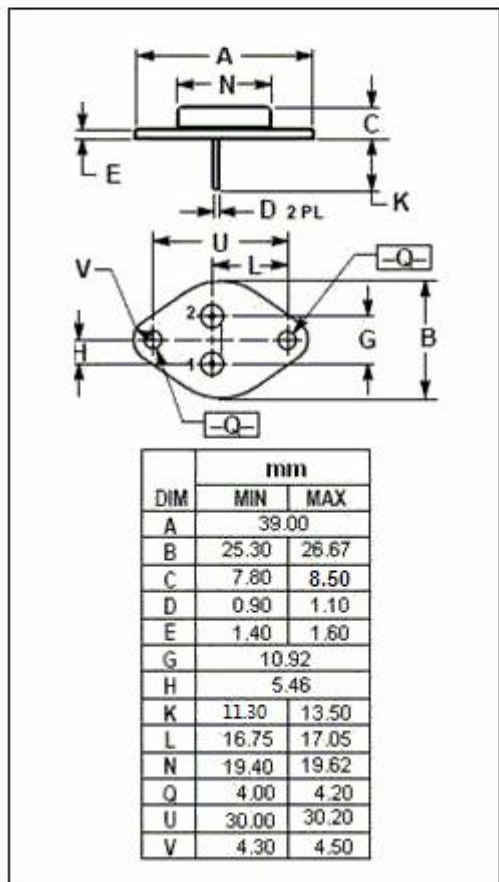
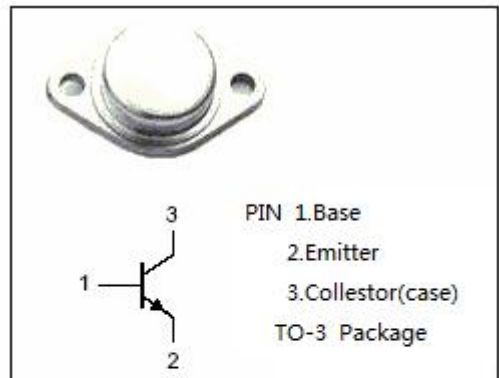
- Designed for general purpose high power switch and amplifier applications.

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

| SYMBOL | PARAMETER | VALUE | UNIT |
|-----------|---|---------|------------------|
| V_{CBO} | Collector-Base Voltage | 160 | V |
| V_{CEO} | Collector-Emitter Voltage | 160 | V |
| V_{EBO} | Emitter-Base Voltage | 7 | V |
| I_C | Collector Current-Continuous | 15 | A |
| P_C | Collector Power Dissipation@ $T_C=25^\circ\text{C}$ | 150 | W |
| T_J | Junction Temperature | 175 | $^\circ\text{C}$ |
| T_{stg} | Storage Temperature | -65~175 | $^\circ\text{C}$ |

THERMAL CHARACTERISTICS

| SYMBOL | PARAMETER | MAX | UNIT |
|---------------|--------------------------------------|------|--------------------|
| $R_{th\ j-c}$ | Thermal Resistance, Junction to Case | 1.17 | $^\circ\text{C/W}$ |



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ELECTRICAL CHARACTERISTICS

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

| SYMBOL | PARAMETER | CONDITIONS | MIN | MAX | UNIT |
|----------------|--------------------------------------|--|-----|-----|------|
| $V_{CEO(SUS)}$ | Collector-Emitter Sustaining Voltage | $I_C=30\text{mA}; I_B=0$ | 160 | | V |
| $V_{CE(sat)}$ | Collector-Emitter Saturation Voltage | $I_C=10\text{A}; I_B=1.33\text{A}$ | | 1 | V |
| $V_{BE(on)}$ | Base-Emitter On Voltage | $I_C=10\text{A}; V_{CE}=10\text{V}$ | | 2 | V |
| h_{FE} | DC Current Gain | $I_C=10\text{A}; V_{CE}=10\text{V}$ | 8.5 | 25 | |
| f_T | Current Gain-Bandwidth Product | $I_C=0.5\text{A}; V_{CE}=4\text{V}; f=1.0\text{MHz}$ | 1.0 | | MHz |

Notice:

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