

## isc Silicon NPN Power Transistor

2SC1358

## DESCRIPTION

- With TO-3 Package
- High voltage
- Wide area of safe operation
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

## APPLICATIONS

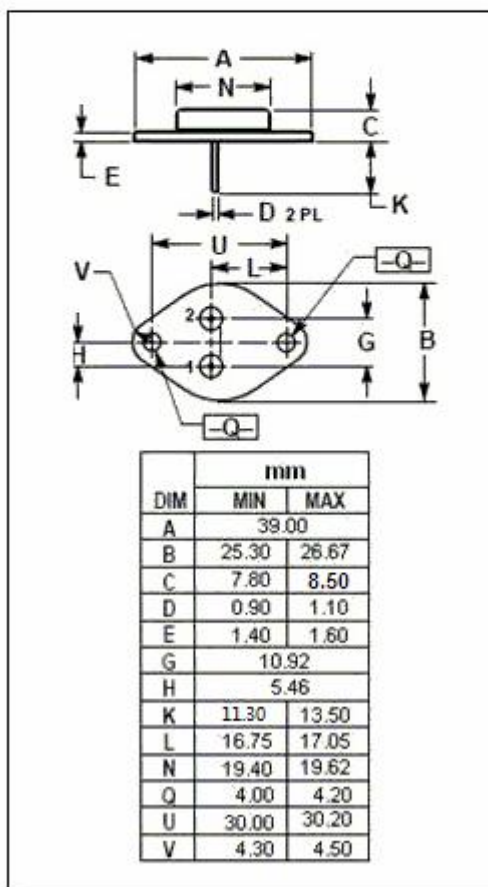
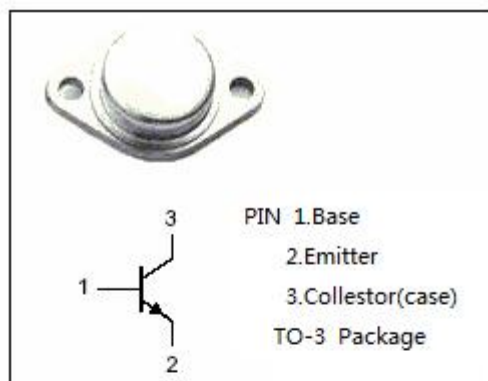
- For large screen color deflection circuits

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

| SYMBOL    | PARAMETER                    | VALUE   | UNIT               |
|-----------|------------------------------|---------|--------------------|
| $V_{CBO}$ | Collector-Base Voltage       | 1400    | V                  |
| $V_{CEO}$ | Collector-Emitter Voltage    | 500     | V                  |
| $V_{EBO}$ | Emitter-Base Voltage         | 6       | V                  |
| $I_C$     | Collector Current-Continuous | 4.5     | A                  |
| $P_C$     | Collector Power Dissipation  | 50      | W                  |
| $T_J$     | Junction Temperature         | -65~200 | $^{\circ}\text{C}$ |
| $T_{stg}$ | Storage Temperature Range    | -65~200 | $^{\circ}\text{C}$ |

## THERMAL CHARACTERISTICS

| SYMBOL        | PARAMETER                            | MAX | UNIT                 |
|---------------|--------------------------------------|-----|----------------------|
| $R_{th\ j-c}$ | Thermal Resistance, Junction to Case | 3.5 | $^{\circ}\text{C/W}$ |



**isc Silicon NPN Power Transistor****2SC1358****ELECTRICAL CHARACTERISTICS****T<sub>c</sub>=25°C unless otherwise specified**

| SYMBOL               | PARAMETER                            | CONDITIONS                                   | MIN | TYP. | MAX | UNIT |
|----------------------|--------------------------------------|----------------------------------------------|-----|------|-----|------|
| V <sub>CE(sat)</sub> | Collector-Emitter Saturation Voltage | I <sub>C</sub> =4A; I <sub>B</sub> = 0.8A    |     |      | 1.0 | V    |
| V <sub>BE(sat)</sub> | Base-Emitter Saturation Voltage      | I <sub>C</sub> =4A; I <sub>B</sub> = 0.8A    |     |      | 1.2 | V    |
| V <sub>(BR)CEO</sub> | Collector-Emitter Breakdown Voltage  | I <sub>C</sub> = 10mA; I <sub>B</sub> = 0    | 500 |      |     | V    |
| V <sub>(BR)EBO</sub> | Emitter-Base Breakdown Voltage       | I <sub>E</sub> = 1mA; I <sub>C</sub> = 0     | 5   |      |     | V    |
| h <sub>FE-1</sub>    | DC Current Gain                      | I <sub>C</sub> =0.5A; V <sub>CE</sub> = 15V  | 10  |      | 45  |      |
| h <sub>FE-2</sub>    | DC Current Gain                      | I <sub>C</sub> =3A; V <sub>CE</sub> = 15V    | 5   |      | 35  |      |
| I <sub>CBO</sub>     | Collector Cutoff Current             | V <sub>CB</sub> = 1000V ; I <sub>E</sub> = 0 |     |      | 200 | uA   |
| I <sub>EBO</sub>     | Emitter Cutoff Current               | V <sub>EB</sub> =5V; I <sub>C</sub> = 0      |     |      | 200 | uA   |

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