

**isc Silicon NPN Power Transistor**
**2SC5280**
**DESCRIPTION**

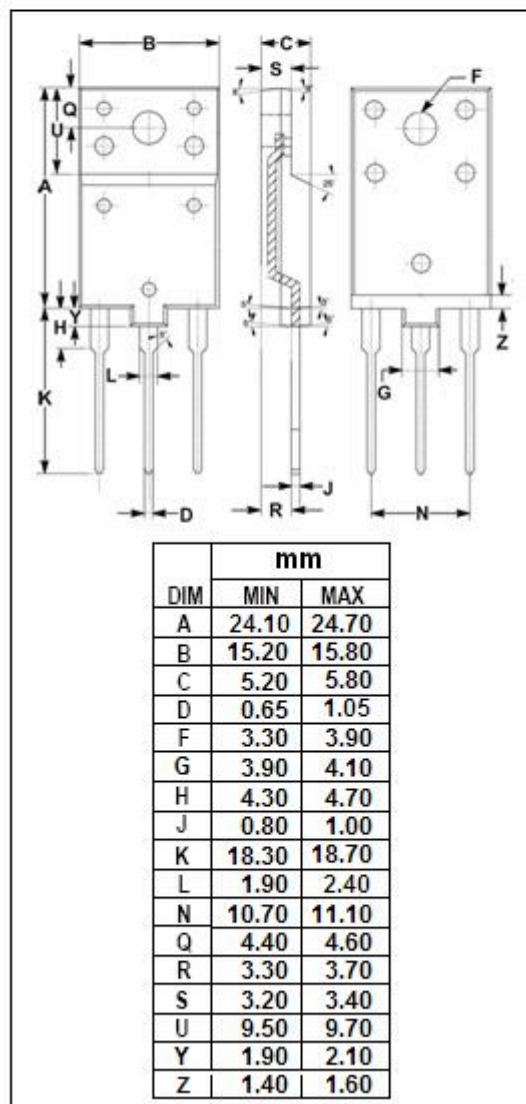
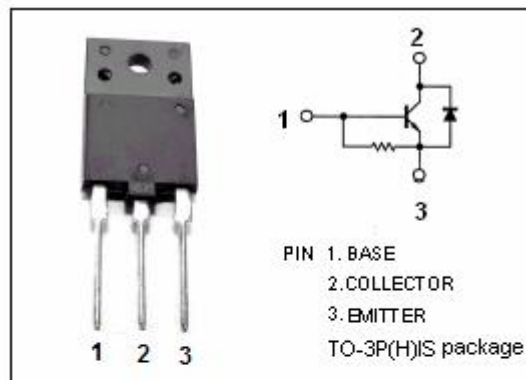
- High Breakdown Voltage-  
:  $V_{CBO} = 1500V$  (Min)
- High Switching Speed
- Low Saturation Voltage
- Built-in Damper Diode
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**

- Horizontal deflection output for high medium resolution display & color TV.
- High speed switching applications.

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

| SYMBOL    | PARAMETER   | VALUE   | UNIT       |
|-----------|---|---------|------------|
| $V_{CBO}$ | Collector-Base Voltage                              | 1500    | V          |
| $V_{CEO}$ | Collector-Emitter Voltage                           | 600     | V          |
| $V_{EBO}$ | Emitter-Base Voltage                                | 5       | V          |
| $I_C$     | Collector Current- Continuous                       | 8       | A          |
| $I_{CM}$  | Collector Current- Continuous                       | 16      | A          |
| $I_B$     | Base Current- Continuous                            | 4       | A          |
| $P_C$     | Collector Power Dissipation<br>@ $T_c = 25^\circ C$ | 50      | W          |
| $T_J$     | Junction Temperature                                | 150     | $^\circ C$ |
| $T_{stg}$ | Storage Temperature Range                           | -55~150 | $^\circ C$ |



**isc Silicon NPN Power Transistor****2SC5280****ELECTRICAL CHARACTERISTICS** $T_c=25^\circ\text{C}$  unless otherwise specified

| SYMBOL        | PARAMETER                            | CONDITIONS                        | MIN | TYP. | MAX | UNIT |
|---------------|--------------------------------------|-----------------------------------|-----|------|-----|------|
| $V_{(BR)EBO}$ | Emitter-Base Breakdown Voltage       | $I_E=200\text{mA}; I_C=0$         | 5   |      |     | V    |
| $V_{CE(sat)}$ | Collector-Emitter Saturation Voltage | $I_C=6\text{A}; I_B=1.5\text{A}$  |     |      | 5.0 | V    |
| $V_{BE(sat)}$ | Base-Emitter Saturation Voltage      | $I_C=6\text{A}; I_B=1.5\text{A}$  |     |      | 1.5 | V    |
| $I_{CBO}$     | Collector Cutoff Current             | $V_{CB}=1500\text{V}; I_E=0$      |     |      | 1.0 | mA   |
| $I_{EBO}$     | Emitter Cutoff Current               | $V_{EB}=5\text{V}; I_C=0$         | 72  |      | 250 | mA   |
| $h_{FE-1}$    | DC Current Gain                      | $I_C=1\text{A}; V_{CE}=5\text{V}$ | 10  |      | 35  |      |
| $h_{FE-2}$    | DC Current Gain                      | $I_C=6\text{A}; V_{CE}=5\text{V}$ | 4   |      | 8.5 |      |

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