

**isc Silicon PNP Power Transistors**
**D45VH10**
**DESCRIPTION**

- Low Collector-Emitter Saturation Voltage  
:  $V_{CE(sat)} = -1.0V(\text{Max}) @ I_C = -8A$
- Fast Switching Speeds
- Complement to Type D44VH10
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**

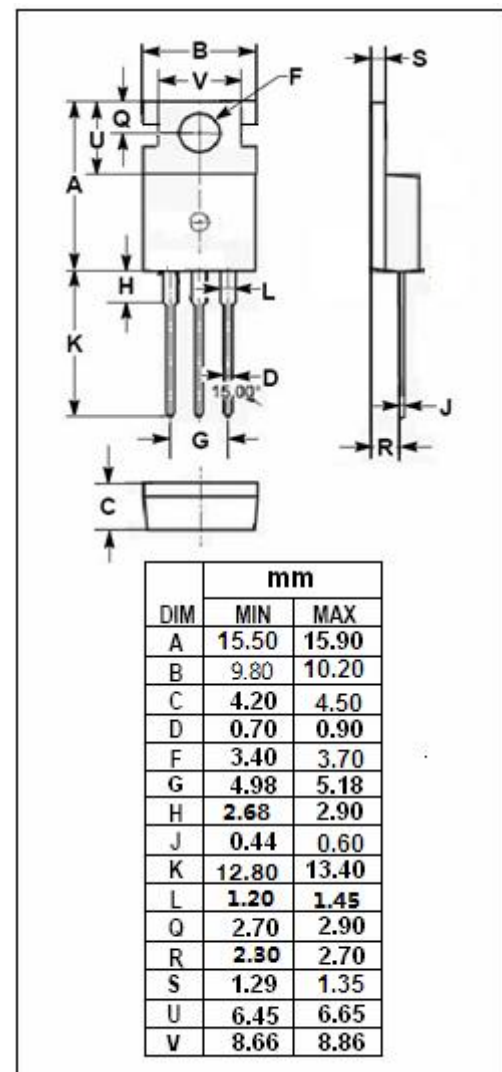
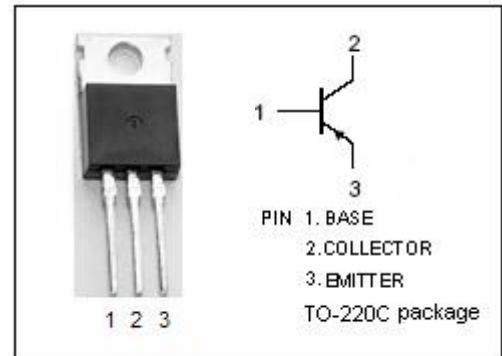
- Designed for general purpose power amplification and switching such as output or driver stages in applications such as switching regulators, converters and power amplifier.

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

| SYMBOL    | PARAMETER   | VALUE   | UNIT             |
|-----------|---|---------|------------------|
| $V_{CEO}$ | Collector-Emitter Voltage                                 | -80     | V                |
| $V_{CBO}$ | Collector-Base Voltage                                    | -100    | V                |
| $V_{EBO}$ | Emitter-Base Voltage                                      | -7.0    | V                |
| $I_C$     | Collector Current-Continuous                              | -15     | A                |
| $P_C$     | Collector Power Dissipation<br>@ $T_C = 25^\circ\text{C}$ | 83      | W                |
| $T_j$     | Junction Temperature                                      | 150     | $^\circ\text{C}$ |
| $T_{stg}$ | Storage Temperature Range                                 | -55~150 | $^\circ\text{C}$ |

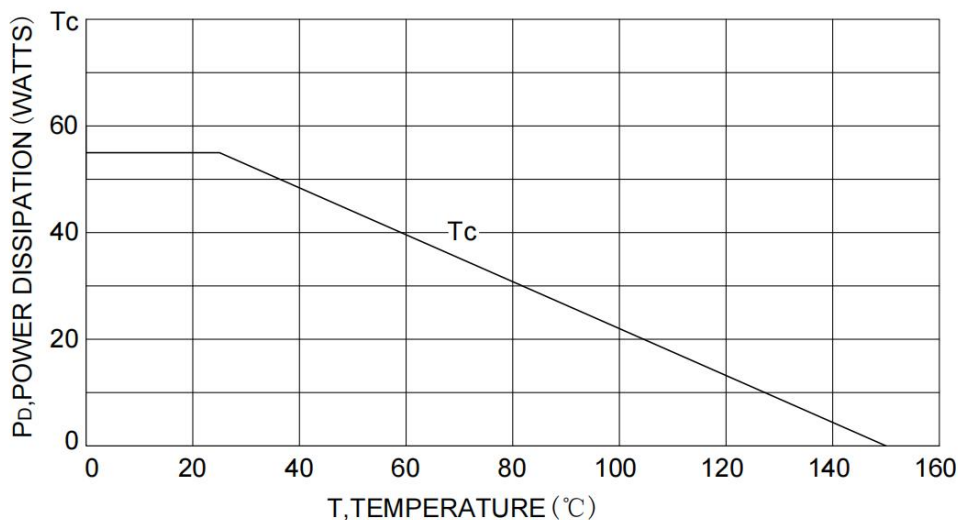
**THERMAL CHARACTERISTICS**

| SYMBOL        | PARAMETER                            | MAX | UNIT               |
|---------------|--------------------------------------|-----|--------------------|
| $R_{th\ j-c}$ | Thermal Resistance, Junction to Case | 1.5 | $^\circ\text{C/W}$ |



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**ELECTRICAL CHARACTERISTICS**
 **$T_c=25^\circ\text{C}$  unless otherwise specified**

| SYMBOL        | PARAMETER                            | CONDITIONS                              | MIN  | MAX  | UNIT          |
|---------------|--------------------------------------|---|------|------|---------------|
| $V_{EBO}$     | Emitter-Base Breakdown Voltage       | $I_E = -1\text{mA}; I_C = 0$            | -7   | -    | V             |
| $V_{CEO}$     | Collector-Emitter Breakdown Voltage  | $I_C = -10\text{mA}; I_B = 0$           | -80  | -    | V             |
| $V_{CBO}$     | Collector-Base Breakdown Voltage     | $I_C = -1\text{mA}; I_B = 0$            | -100 | -    | V             |
| $I_{CEO}$     | Collector-Emitter Cutoff Current     | $V_{CE} = -80\text{V}; I_B = 0$         | -    | 1    | mA            |
| $I_{CBO}$     | Collector-Base Cutoff Current        | $V_{CE} = -100\text{V}; I_B = 0$        | -    | 0.1  | mA            |
| $I_{EBO}$     | Emitter Cutoff Current               | $V_{EB} = -7\text{V}; I_C = 0$          | -    | -10  | $\mu\text{A}$ |
| $V_{CE(sat)}$ | Collector-Emitter Saturation Voltage | $I_C = -8\text{A}; I_B = -0.8\text{A}$  | -    | -1.0 | V             |
| $V_{BE(sat)}$ | Base-Emitter Saturation Voltage      | $I_C = -8\text{A}; I_B = -0.8\text{A}$  | -    | -1.2 | V             |
| $h_{FE-1}$    | DC Current Gain                      | $I_C = -2\text{A}; V_{CE} = -1\text{V}$ | 35   | -    | -             |
| $h_{FE-2}$    | DC Current Gain                      | $I_C = -4\text{A}; V_{CE} = -1\text{V}$ | 20   | -    | -             |

**• Power and temperature curve**


**NOTICE:**

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