

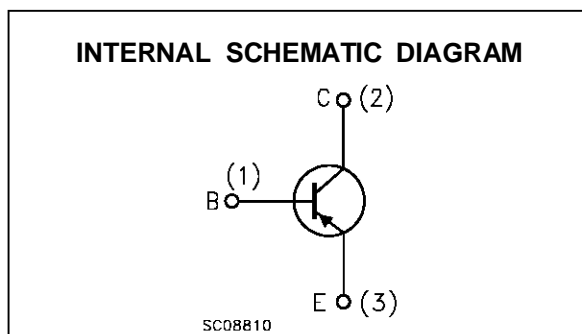
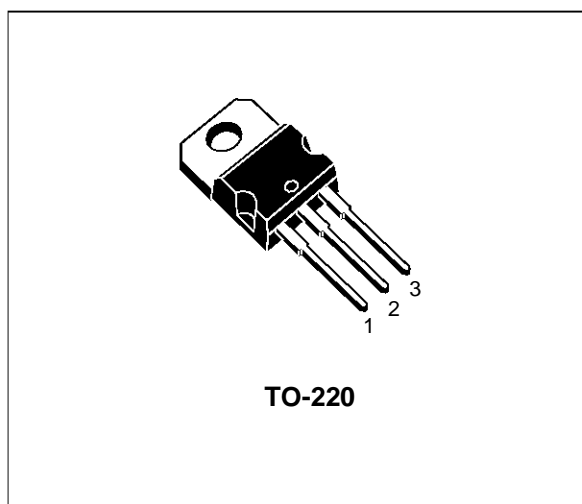
SILICON PNP TRANSISTOR

■ SGS-THOMSON PREFERRED SALESTYPES

DESCRIPTION

The D45H5, and D45H8 are silicon multiepitaxial planar PNP transistors mounted in Jedec TO-220 plastic package.

They are intended for various switching and general purpose applications.



ABSOLUTE MAXIMUM RATINGS

| Symbol | Parameter | Value | | Unit |
|------------------|--|------------|-------|------|
| | | D45H5 | D45H8 | |
| V _{CBO} | Collector-Base Voltage (I _E = 0) | -45 | -60 | V |
| V _{CEO} | Collector-Emitter Voltage (I _B = 0) | -45 | -60 | V |
| V _{EBO} | Emitter-Base Voltage (I _C = 0) | -5 | | V |
| I _C | Collector Current | -10 | | A |
| I _{CM} | Collector Peak Current | -20 | | A |
| I _B | Base Current | -5 | | A |
| P _{tot} | Total Dissipation at T _c ≤ 25 °C | 50 | | W |
| T _{stg} | Storage Temperature | -65 to 150 | | °C |
| T _j | Max. Operating Junction Temperature | 150 | | °C |

D45H5/D45H8

THERMAL DATA

| | | | | |
|----------------|----------------------------------|-----|-----|---------------|
| $R_{thj-case}$ | Thermal Resistance Junction-case | Max | 2.5 | $^{\circ}C/W$ |
|----------------|----------------------------------|-----|-----|---------------|

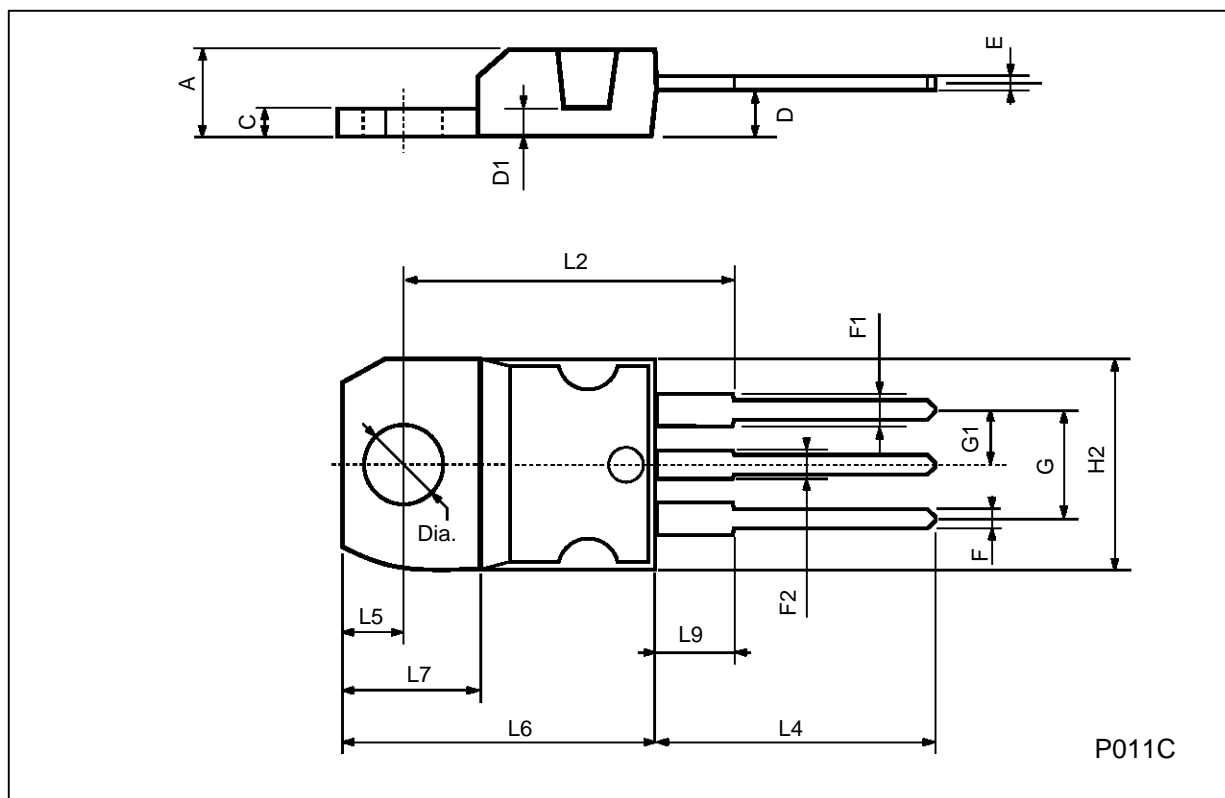
ELECTRICAL CHARACTERISTICS ($T_{case} = 25^{\circ}C$ unless otherwise specified)

| Symbol | Parameter | Test Conditions | Min. | Typ. | Max. | Unit |
|------------------|---|--|------------|-----------|----------|---------|
| I_{CBO} | Collector Cut-off Current ($I_E = 0$) | $V_{CB} = \text{rated } V_{CEO}$ | | | -10 | μA |
| I_{EBO} | Emitter Cut-off Current ($I_C = 0$) | $V_{EB} = -5V$ | | | -100 | μA |
| $V_{CEO(sus)}^*$ | Collector-Emitter Sustaining Voltage | $I_C = -100 \text{ mA}$ for D45H5 for D45H8 | -45 -60 | | | V V |
| $V_{CE(sat)}^*$ | Collector-Emitter Saturation Voltage | $I_C = -8 \text{ A}$ $I_B = -0.4 \text{ A}$ $I_C = -8 \text{ A}$ $I_B = -0.8 \text{ A}$ | | | -1 -1 | V V |
| $V_{BE(sat)}^*$ | Base-Emitter Saturation Voltage | $I_C = -8 \text{ A}$ $I_B = -0.8 \text{ A}$ | | | -1.5 | V |
| h_{FE}^* | DC Current Gain | $I_C = -2 \text{ A}$ $V_{CE} = -1 \text{ V}$ $I_C = -4 \text{ A}$ $V_{CE} = -1 \text{ V}$ | 60 40 | 120 70 | | |

* Pulsed: Pulse duration = 300 μs , duty cycle $\leq 2\%$

TO-220 MECHANICAL DATA

| DIM. | mm | | | inch | | |
|------|-------|------|-------|-------|-------|-------|
| | MIN. | TYP. | MAX. | MIN. | TYP. | MAX. |
| A | 4.40 | | 4.60 | 0.173 | | 0.181 |
| C | 1.23 | | 1.32 | 0.048 | | 0.051 |
| D | 2.40 | | 2.72 | 0.094 | | 0.107 |
| D1 | | 1.27 | | | 0.050 | |
| E | 0.49 | | 0.70 | 0.019 | | 0.027 |
| F | 0.61 | | 0.88 | 0.024 | | 0.034 |
| F1 | 1.14 | | 1.70 | 0.044 | | 0.067 |
| F2 | 1.14 | | 1.70 | 0.044 | | 0.067 |
| G | 4.95 | | 5.15 | 0.194 | | 0.203 |
| G1 | 2.4 | | 2.7 | 0.094 | | 0.106 |
| H2 | 10.0 | | 10.40 | 0.393 | | 0.409 |
| L2 | | 16.4 | | | 0.645 | |
| L4 | 13.0 | | 14.0 | 0.511 | | 0.551 |
| L5 | 2.65 | | 2.95 | 0.104 | | 0.116 |
| L6 | 15.25 | | 15.75 | 0.600 | | 0.620 |
| L7 | 6.2 | | 6.6 | 0.244 | | 0.260 |
| L9 | 3.5 | | 3.93 | 0.137 | | 0.154 |
| DIA. | 3.75 | | 3.85 | 0.147 | | 0.151 |



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