

RoHS Compliant Product

FEATURES

Power dissipation

$P_{CM} : 0.2 \text{ W}$

Collector Current

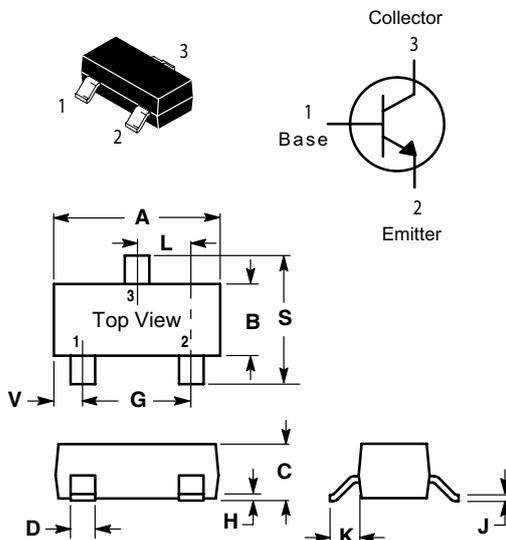
$I_{CM} : 1.5 \text{ A}$

Collector-base voltage

$V_{(BR)CBO} : 40 \text{ V}$

Operating & storage junction temperature

$T_j, T_{stg} : -55^{\circ}\text{C} \sim +150^{\circ}\text{C}$



| SOT-323 | | |
|---------------------|-------|-------|
| Dim | Min | Max |
| A | 1.800 | 2.200 |
| B | 1.150 | 1.350 |
| C | 0.800 | 1.000 |
| D | 0.300 | 0.400 |
| G | 1.200 | 1.400 |
| H | 0.000 | 0.100 |
| J | 0.100 | 0.250 |
| K | 0.350 | 0.500 |
| L | 0.590 | 0.720 |
| S | 2.000 | 2.400 |
| V | 0.280 | 0.420 |
| All Dimension in mm | | |

ELECTRICAL CHARACTERISTICS (Tamp.=25°C unless otherwise specified)

| Parameter | Symbol | Test conditions | MIN | TYP | MAX | UNIT |
|--------------------------------------|---------------|---|-----|-----|-----|---------------|
| Collector-base breakdown voltage | $V_{(BR)CBO}$ | $I_C = 100 \mu\text{A}, I_E = 0$ | 40 | | | V |
| Collector-emitter breakdown voltage | $V_{(BR)CEO}$ | $I_C = 0.1\text{mA}, I_B = 0$ | 25 | | | V |
| Emitter-base breakdown voltage | $V_{(BR)EBO}$ | $I_E = 100 \mu\text{A}, I_C = 0$ | 5 | | | V |
| Collector cut-off current | I_{CBO} | $V_{CB} = 40 \text{ V}, I_E = 0$ | | | 0.1 | μA |
| Collector cut-off current | I_{CEO} | $V_{CE} = 20 \text{ V}, I_B = 0$ | | | 0.1 | μA |
| Emitter cut-off current | I_{EBO} | $V_{EB} = 5 \text{ V}, I_C = 0$ | | | 0.1 | μA |
| DC current gain | $H_{FE(1)}$ | $V_{CE} = 1 \text{ V}, I_C = 50 \text{ mA}$ | 120 | | 350 | |
| | $H_{FE(2)}$ | $V_{CE} = 1 \text{ V}, I_C = 500 \text{ mA}$ | 40 | | | |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C = 500 \text{ mA}, I_B = 50 \text{ mA}$ | | | 0.5 | V |
| Base-emitter saturation voltage | $V_{BE(sat)}$ | $I_C = 500 \text{ mA}, I_B = 50 \text{ mA}$ | | | 1.2 | V |
| Transition frequency | f_T | $V_{CE} = 6 \text{ V}, I_C = 20 \text{ mA}$ $f = 30 \text{ MHz}$ | 100 | | | MHz |

CLASSIFICATION OF $h_{FE(1)}$

| Rank | L | H |
|-------|---------|---------|
| Range | 120-200 | 200-350 |

Marking : Y1

