

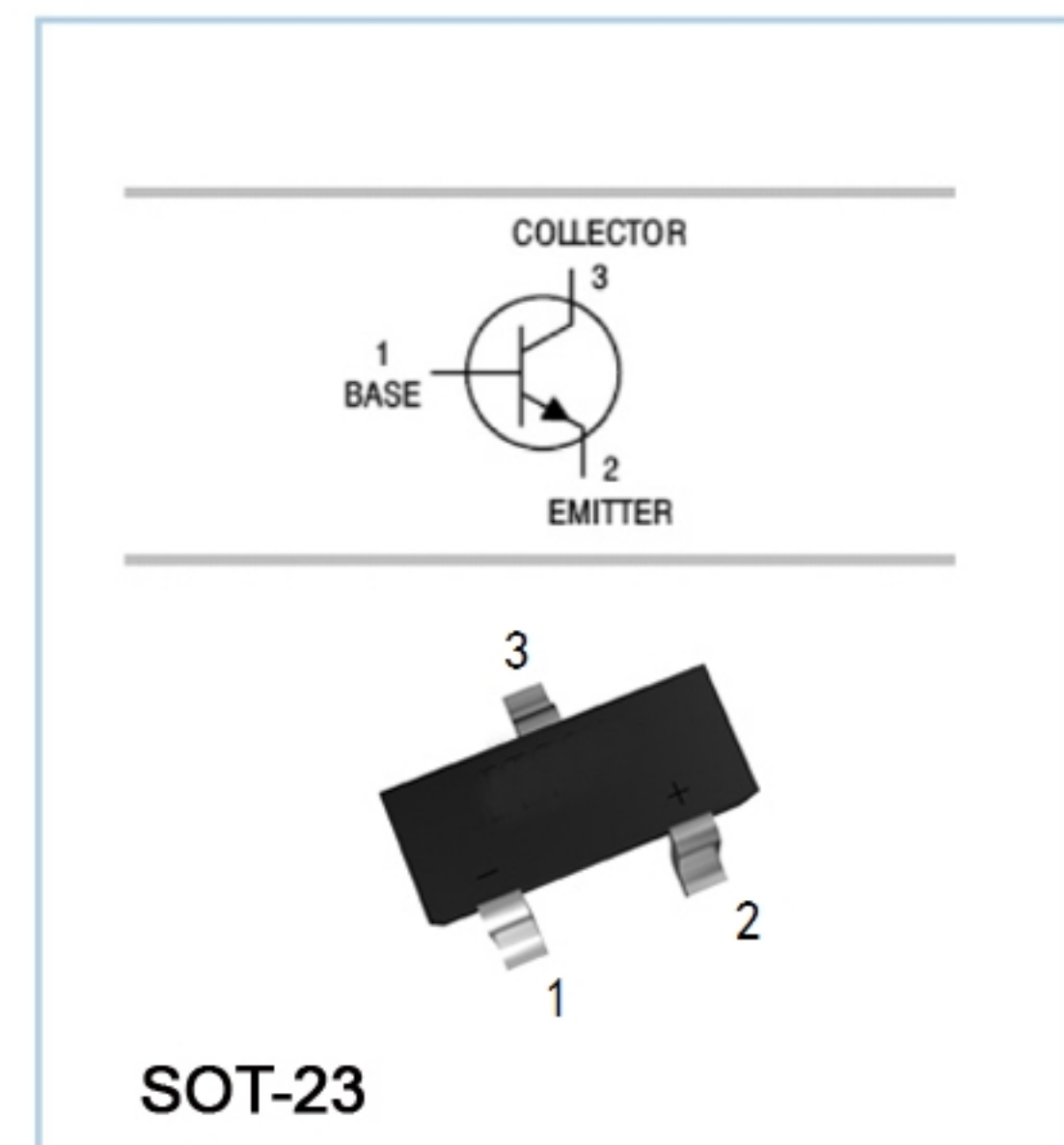
Silicon Epitaxial Planar Transistor

## FEATURES

- High DC current gain:  $h_{FE}=200$  TYP  
( $V_{CEO}=50\text{ V}$ ,  $I_C=100\text{ mA}$ )
- High Voltage:  $V_{CEO}=50\text{ V}$

## APPLICATIONS

- NPN Silicon Epitaxial Planar Transistor
- Audio frequency general purpose amplifier.



## ORDERING INFORMATION

| Type No. | Marking     | Package Code |
|----------|-------------|--------------|
| 2SC1623  | L4 L5 L6 L7 | SOT-23       |

**MAXIMUM RATING** @  $T_a=25^\circ\text{C}$  unless otherwise specified

| Symbol         | Parameter                        | Value   | Units            |
|----------------|----------------------------------|---------|------------------|
| $V_{CBO}$      | Collector-Base Voltage           | 60      | V                |
| $V_{CEO}$      | Collector-Emitter Voltage        | 50      | V                |
| $V_{EBO}$      | Emitter-Base Voltage             | 5       | V                |
| $I_C$          | Collector Current -Continuous    | 100     | mA               |
| $P_C$          | Collector Dissipation            | 200     | mW               |
| $T_j, T_{stg}$ | Junction and Storage Temperature | -55~150 | $^\circ\text{C}$ |

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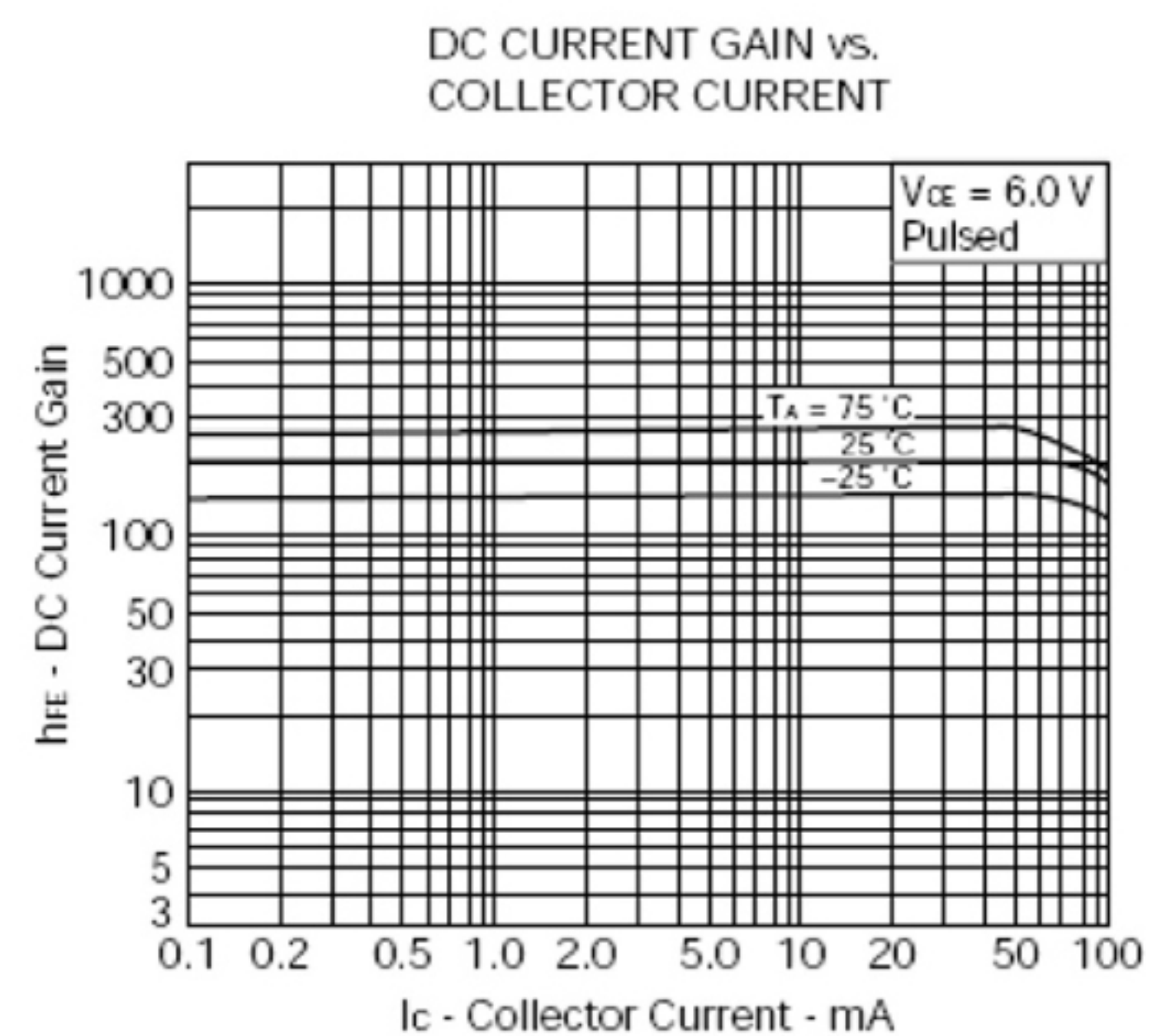
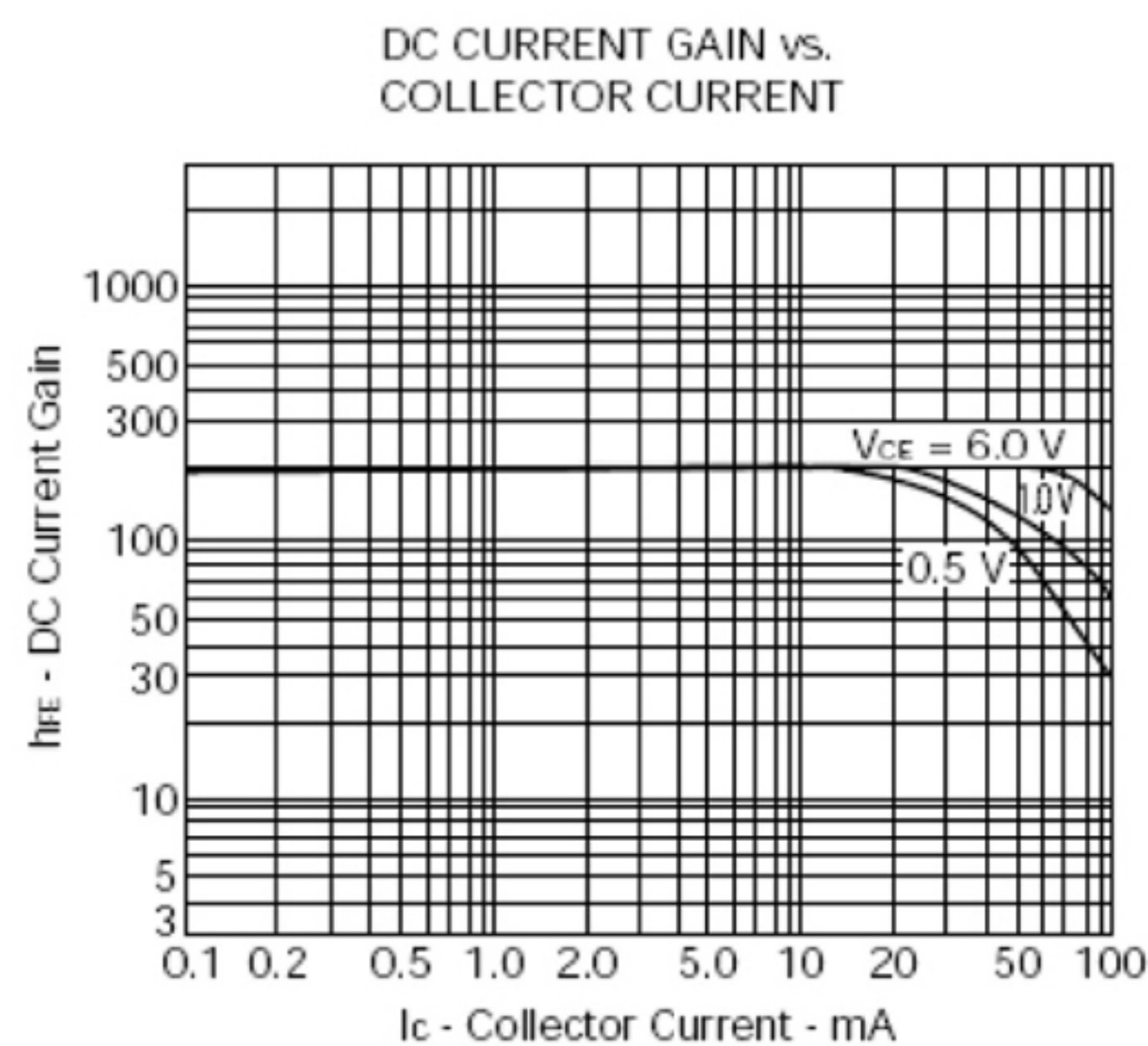
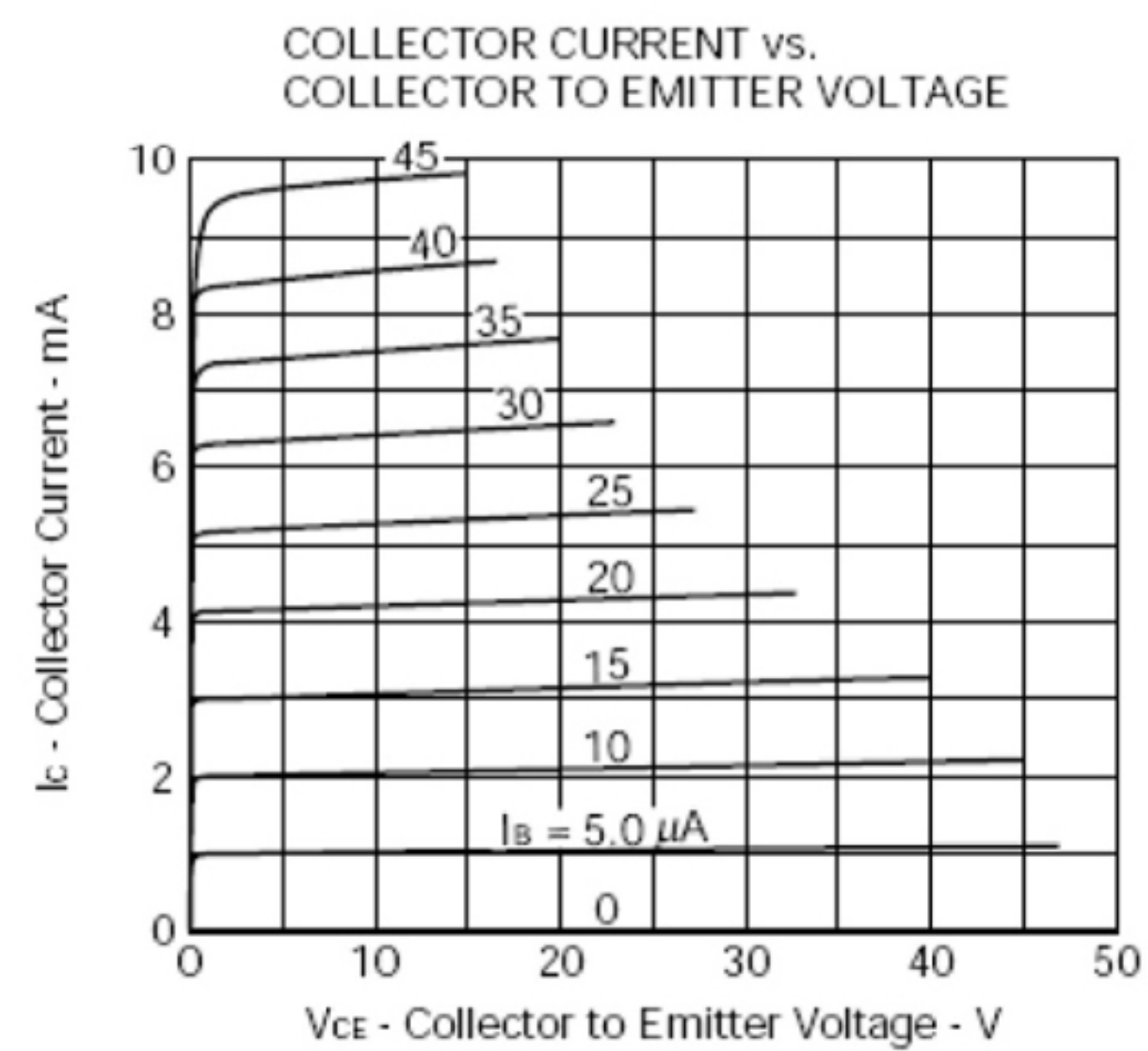
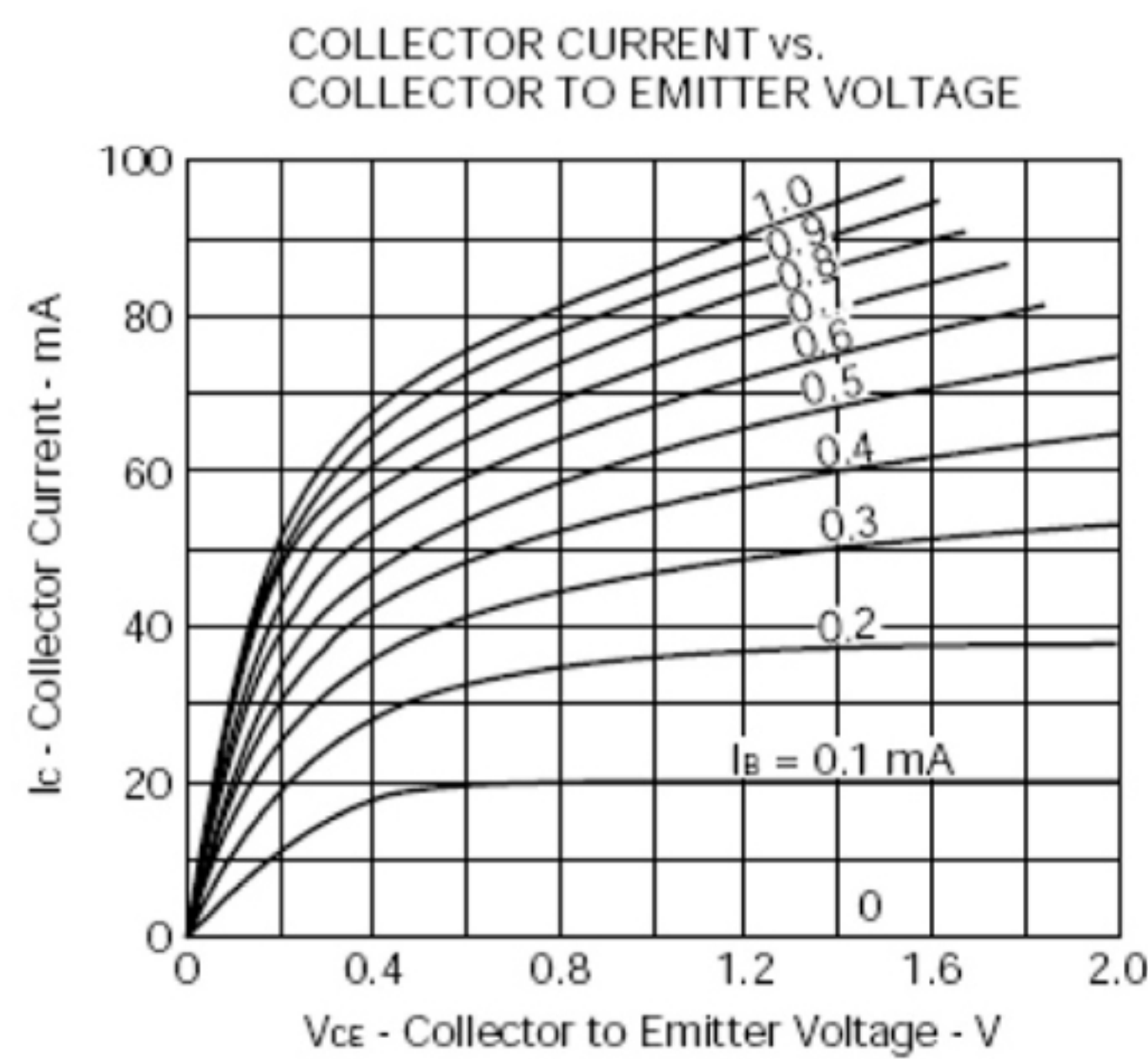
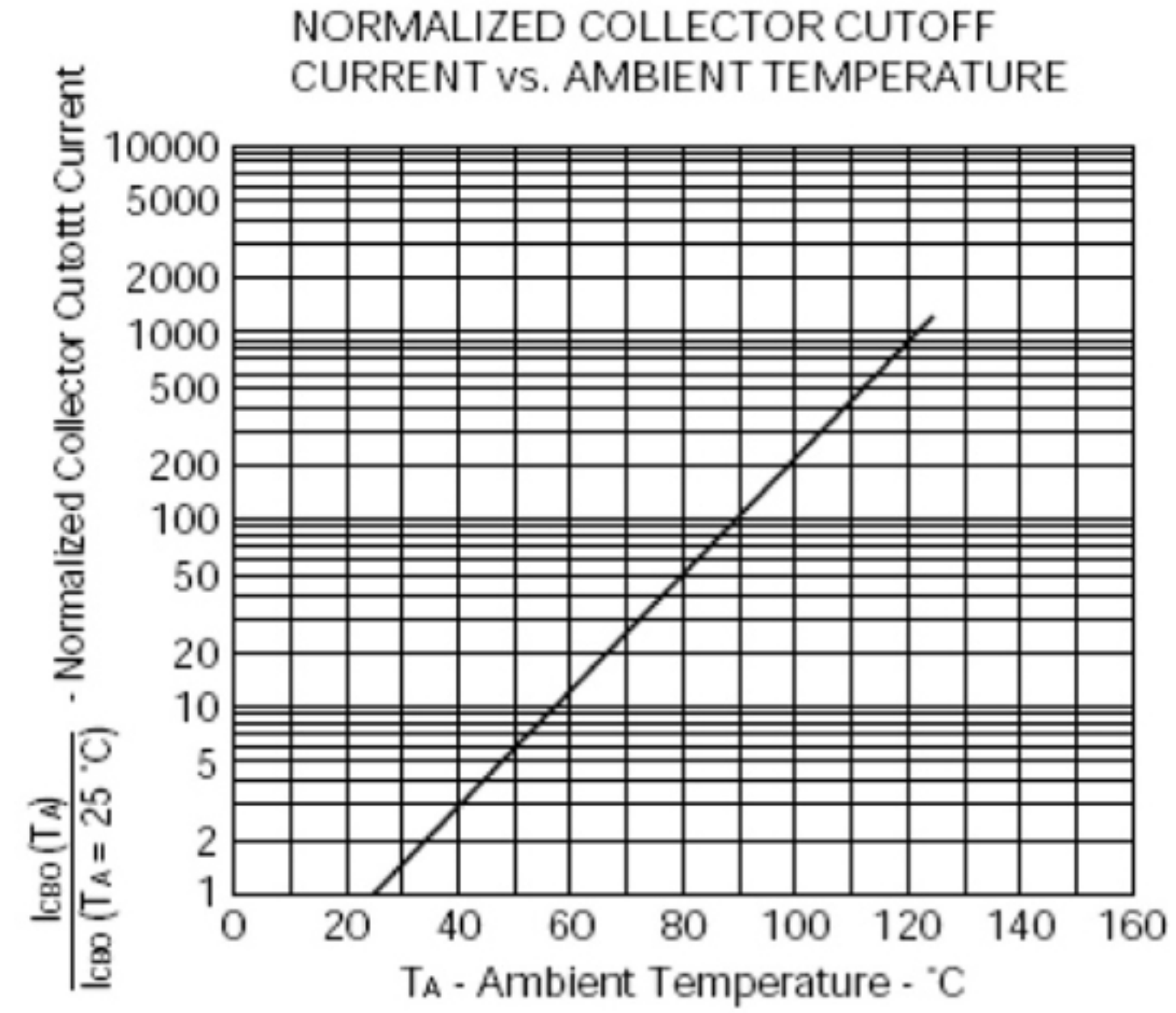
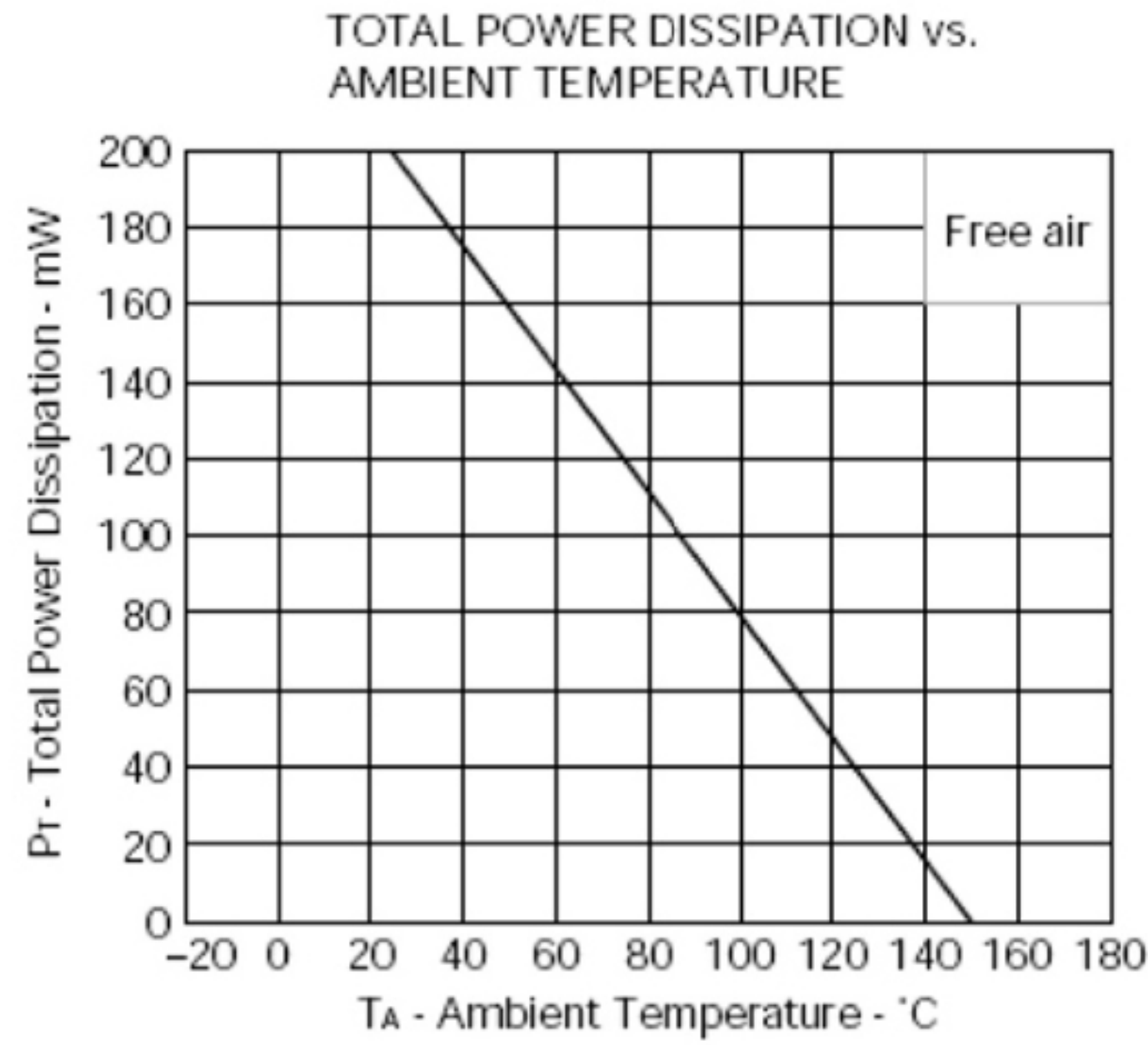
## ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

| Parameter                            | Symbol        | Test conditions       | MIN | TYP | MAX | UNIT    |
|--------------------------------------|---------------|-----------------------|-----|-----|-----|---------|
| Collector-base breakdown voltage     | $V_{(BR)CBO}$ | $I_C=100\mu A, I_E=0$ | 60  |     |     | V       |
| Collector-emitter breakdown voltage  | $V_{(BR)CEO}$ | $I_C=1mA, I_B=0$      | 50  |     |     | V       |
| Emitter-base breakdown voltage       | $V_{(BR)EBO}$ | $I_E=100\mu A, I_C=0$ | 5   |     |     | V       |
| Collector cut-off current            | $I_{CBO}$     | $V_{CB}=60V, I_E=0$   |     |     | 0.1 | $\mu A$ |
| Emitter cut-off current              | $I_{EBO}$     | $V_{EB}=5V, I_C=0$    |     |     | 0.1 | $\mu A$ |
| DC current gain                      | $h_{FE}$      | $V_{CE}=6V, I_C=1mA$  | 90  | 200 | 600 |         |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C=100mA, I_B=10mA$ |     |     | 0.3 | V       |
| Transition frequency                 | $f_T$         | $V_{CE}=6V, I_C=10mA$ |     | 250 |     | MHz     |

|         |        |         |         |         |
|---------|--------|---------|---------|---------|
| Rank    | L4     | L5      | L6      | L7      |
| Range   | 90-180 | 135-270 | 200-400 | 300-600 |
| Marking | L4     | L5      | L6      | L7      |

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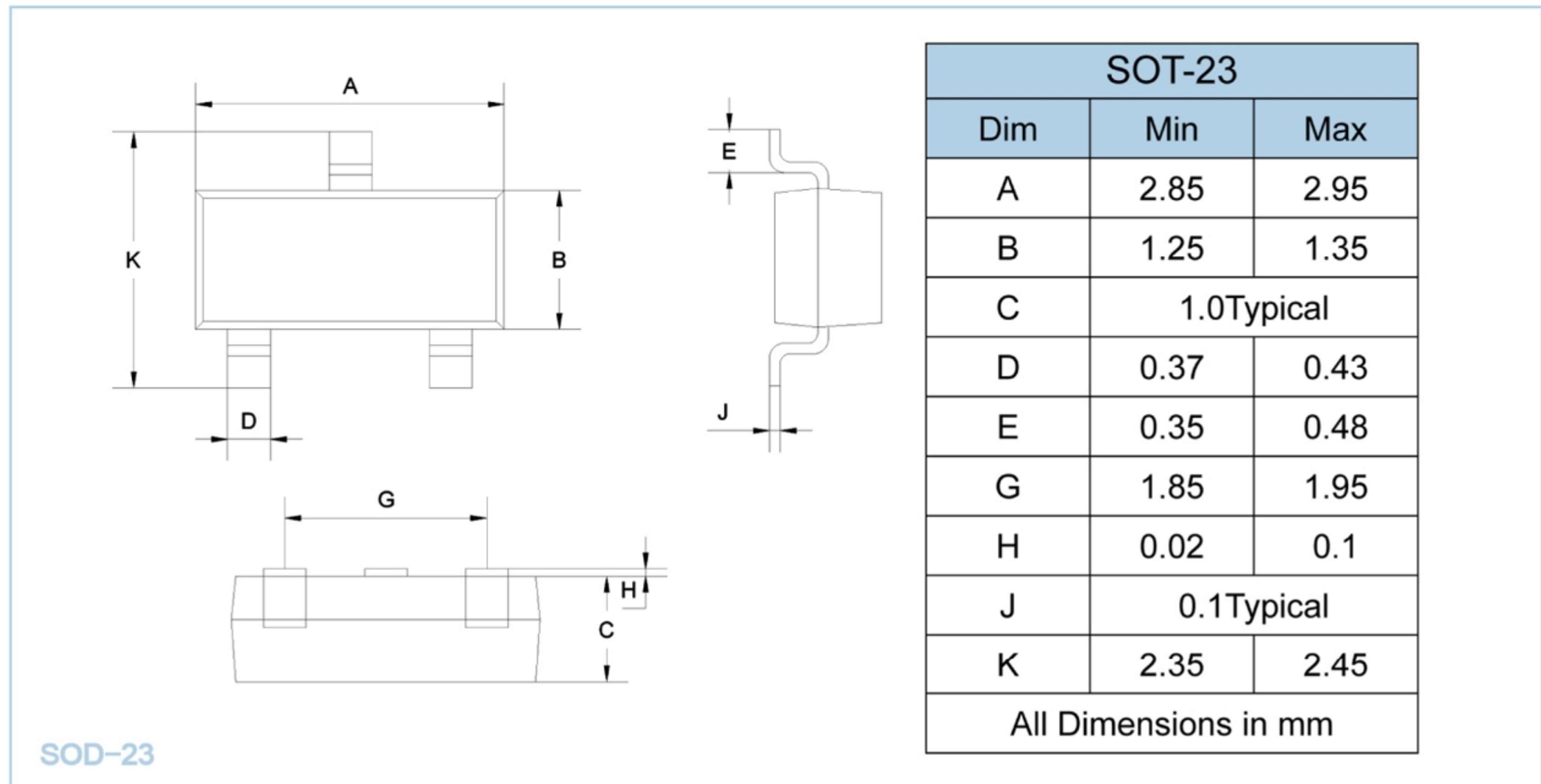
TYPICAL CHARACTERISTICS @  $T_a=25^\circ\text{C}$  unless otherwise specified



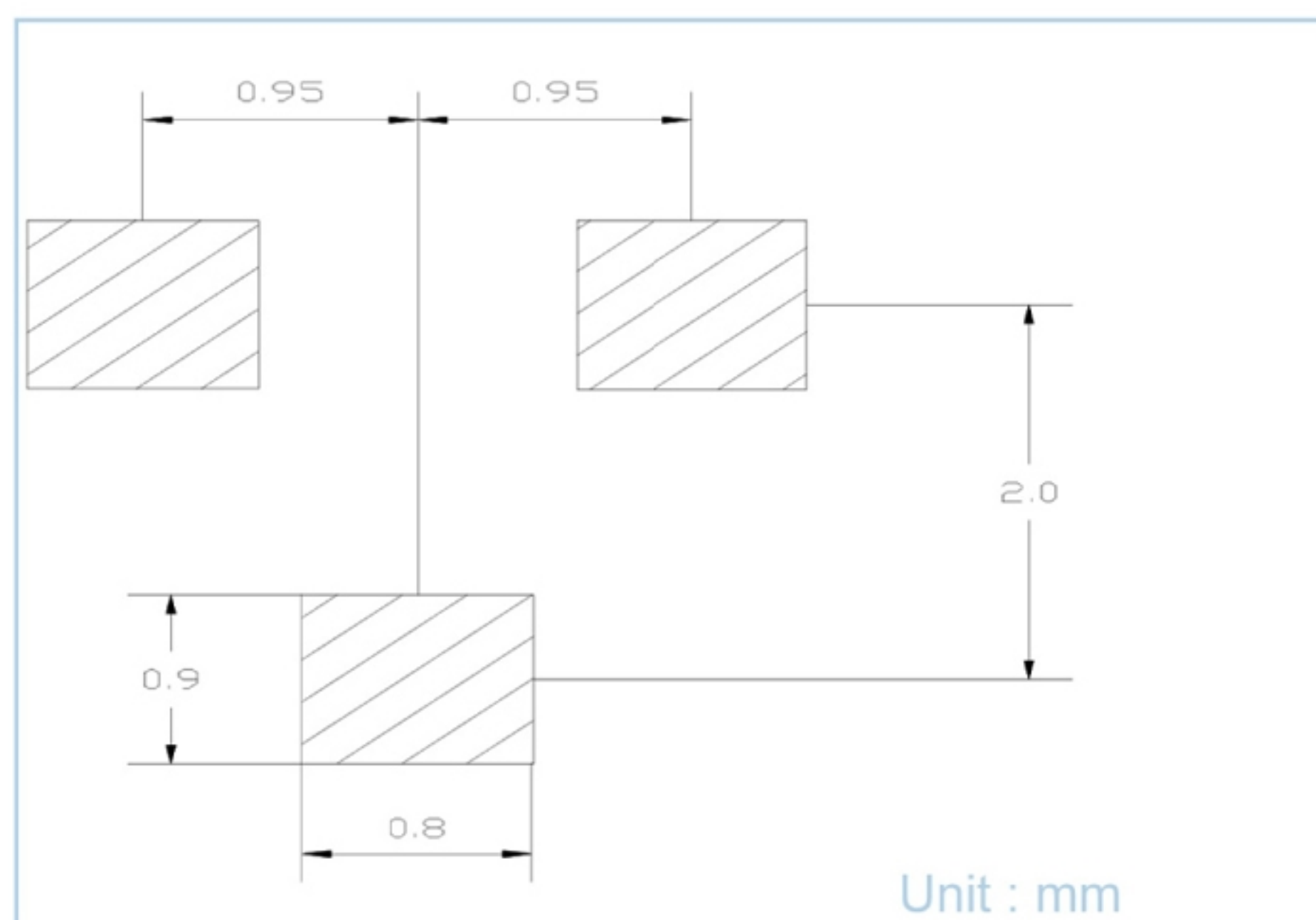
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## PACKAGE OUTLINE

Plastic surface mounted package



## SOLDERING FOOTPRINT



## PACKAGE INFORMATION

| Device  | Package | Shipping       |
|---------|---------|----------------|
| 2SC1623 | SOT-23  | 3000/Tape&Reel |