

General purpose transistor (dual transistors)

IMX17

●Features

- 1) Two 2SD1484K chips in an SMT package.
- 2) Mounting possible with SMT3 automatic mounting machine.
- 3) Transistor elements are independent, eliminating interference.
- 4) High collector current.
 $I_c = 500\text{mA}$
- 5) Mounting cost and area can be cut in half.

●Structure

Epitaxial planar type
NPN silicon transistor

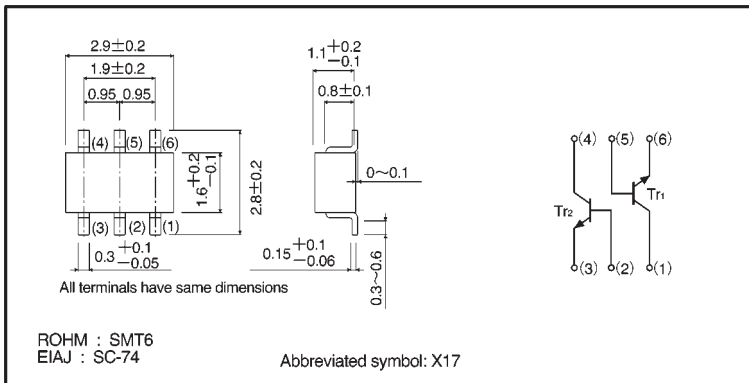
The following characteristics apply to both Tr_1 and Tr_2 .

●Absolute maximum ratings ($T_a = 25^\circ\text{C}$)

| Parameter | Symbol | Limits | Unit |
|---------------------------|-----------|-----------------|------------------|
| Collector-base voltage | V_{CBO} | 60 | V |
| Collector-emitter voltage | V_{CEO} | 50 | V |
| Emitter-base voltage | V_{EBO} | 5 | V |
| Collector current | I_c | 500 | mA |
| Power dissipation | P_d | 300 (TOTAL) | mW * |
| Junction temperature | T_j | 150 | $^\circ\text{C}$ |
| Storage temperature | T_{stg} | $-55 \sim +150$ | $^\circ\text{C}$ |

*200 mW per element must not be exceeded.

●External dimensions (Units: mm)



●Electrical characteristics (Ta = 25°C)

| Parameter | Symbol | Min. | Typ. | Max. | Unit | Conditions |
|--------------------------------------|---------------|------|------|------|---------|----------------------------------|
| Collector-base breakdown voltage | BV_{CBO} | 60 | — | — | V | $I_C=100\ \mu A$ |
| Collector-emitter breakdown voltage | BV_{CEO} | 50 | — | — | V | $I_C=1mA$ |
| Emitter-base breakdown voltage | BV_{EBO} | 5 | — | — | V | $I_E=100\ \mu A$ |
| Collector cutoff current | I_{CBO} | — | — | 0.1 | μA | $V_{CB}=30V$ |
| Emitter cutoff current | I_{EBO} | — | — | 0.1 | μA | $V_{EB}=4V$ |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | — | — | 0.6 | V | $I_C/I_B=500mA/50mA$ |
| DC current transfer ratio | h_{FE} | 120 | — | 390 | — | $V_{CE}=3V, I_C=100mA$ * |
| Transition frequency | f_T | — | 250 | — | MHz | $V_{CE}=5V, I_E=-20mA, f=100MHz$ |
| Output capacitance | C_{ob} | — | 7 | — | pF | $V_{CB}=10V, I_E=0A, f=1MHz$ |

* Measured using pulse current.

●Packaging specifications

| | | |
|----------|------------------------------|--------|
| Part No. | Packaging type | Taping |
| | Code | T110 |
| | Basic ordering unit (pieces) | 3000 |
| IMX17 | | |

●Electrical characteristic curves

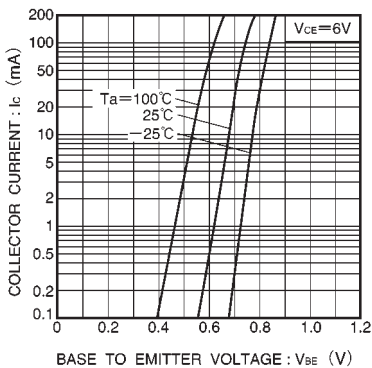


Fig.1 Grounded emitter propagation characteristics

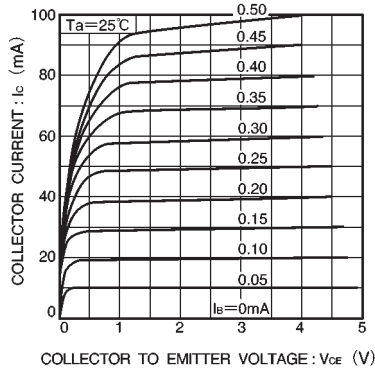


Fig.2 Grounded emitter output characteristics

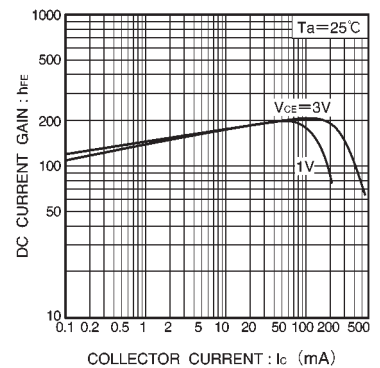


Fig.3 DC current gain vs. collector current (I)

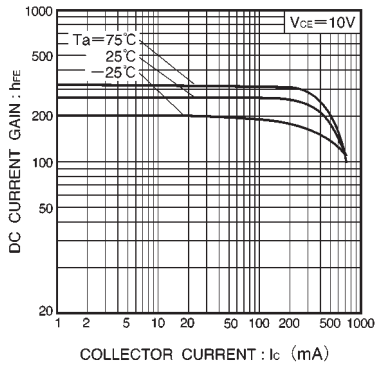


Fig.4 DC current gain vs. collector current (II)

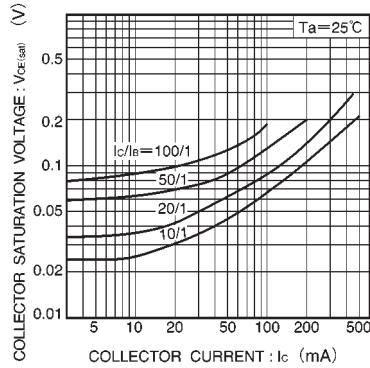


Fig.5 Collector-emitter saturation voltage vs. collector current

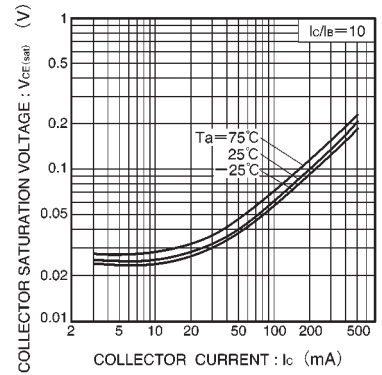


Fig.6 Collector-emitter saturation voltage vs. collector current

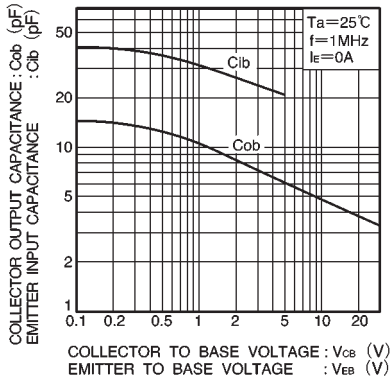


Fig.7 Input/output capacitance vs. voltage

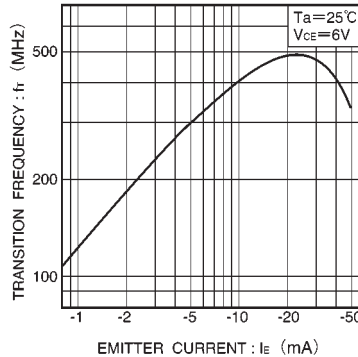


Fig.8 Gain bandwidth product vs. emitter current



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