

2SA715

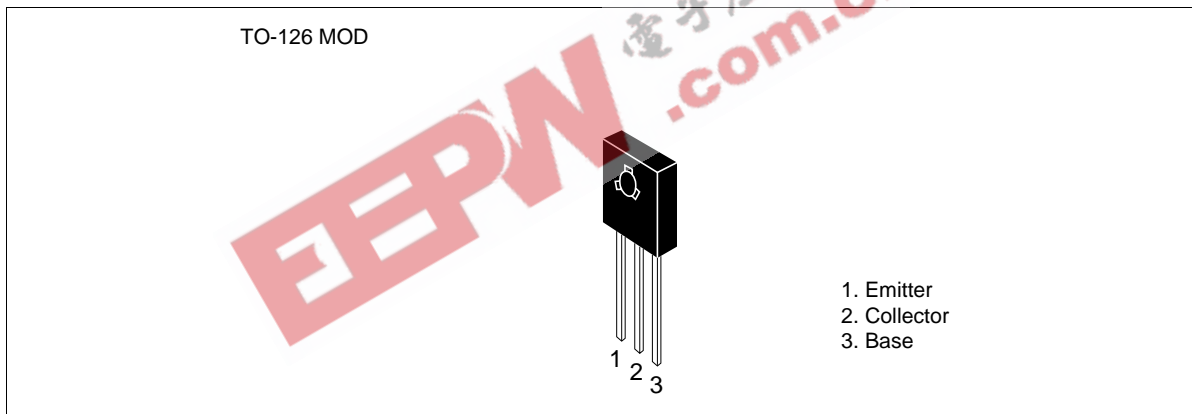
Silicon PNP Epitaxial

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Application

Low frequency power amplifier complementary pair with 2SC1162

Outline



Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

| Item | Symbol | Rating | Unit |
|------------------------------|----------------------|-------------|------------------|
| Collector to base voltage | V_{CBO} | -35 | V |
| Collector to emitter voltage | V_{CEO} | -35 | V |
| Emitter to base voltage | V_{EBO} | -5 | V |
| Collector current | I_{C} | -2.5 | A |
| Collector peak current | $I_{\text{C(peak)}}$ | -3 | A |
| Collector power dissipation | P_{C} | 0.75 | W |
| | P_{C}^{*1} | 10 | W |
| Junction temperature | T_{j} | 150 | $^\circ\text{C}$ |
| Storage temperature | T_{stg} | -55 to +150 | $^\circ\text{C}$ |

Note: 1. Value at $T_{\text{c}} = 25^\circ\text{C}$

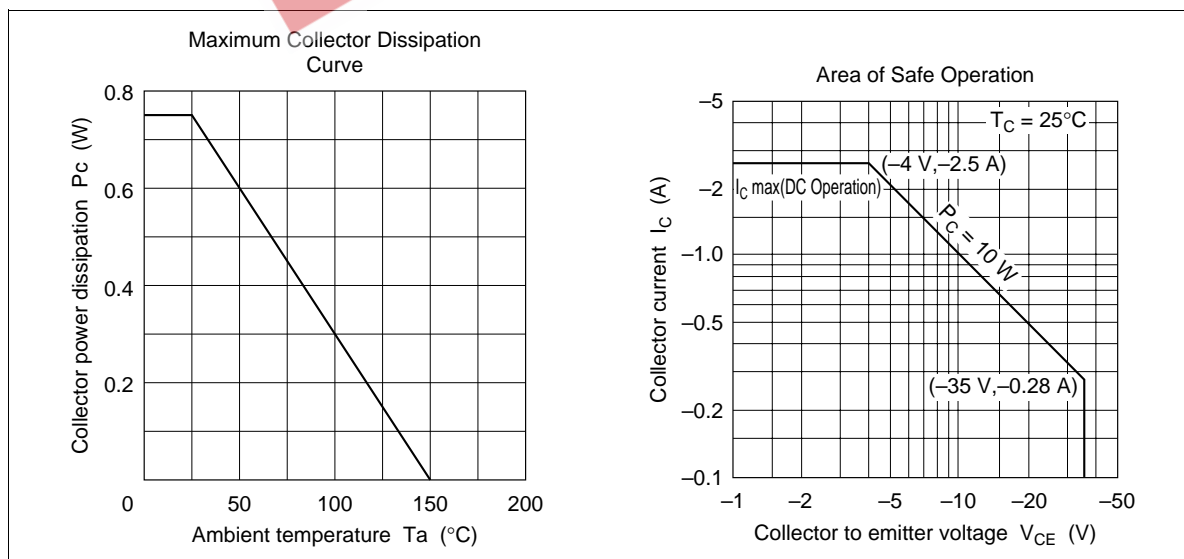
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Electrical Characteristics (Ta = 25°C)

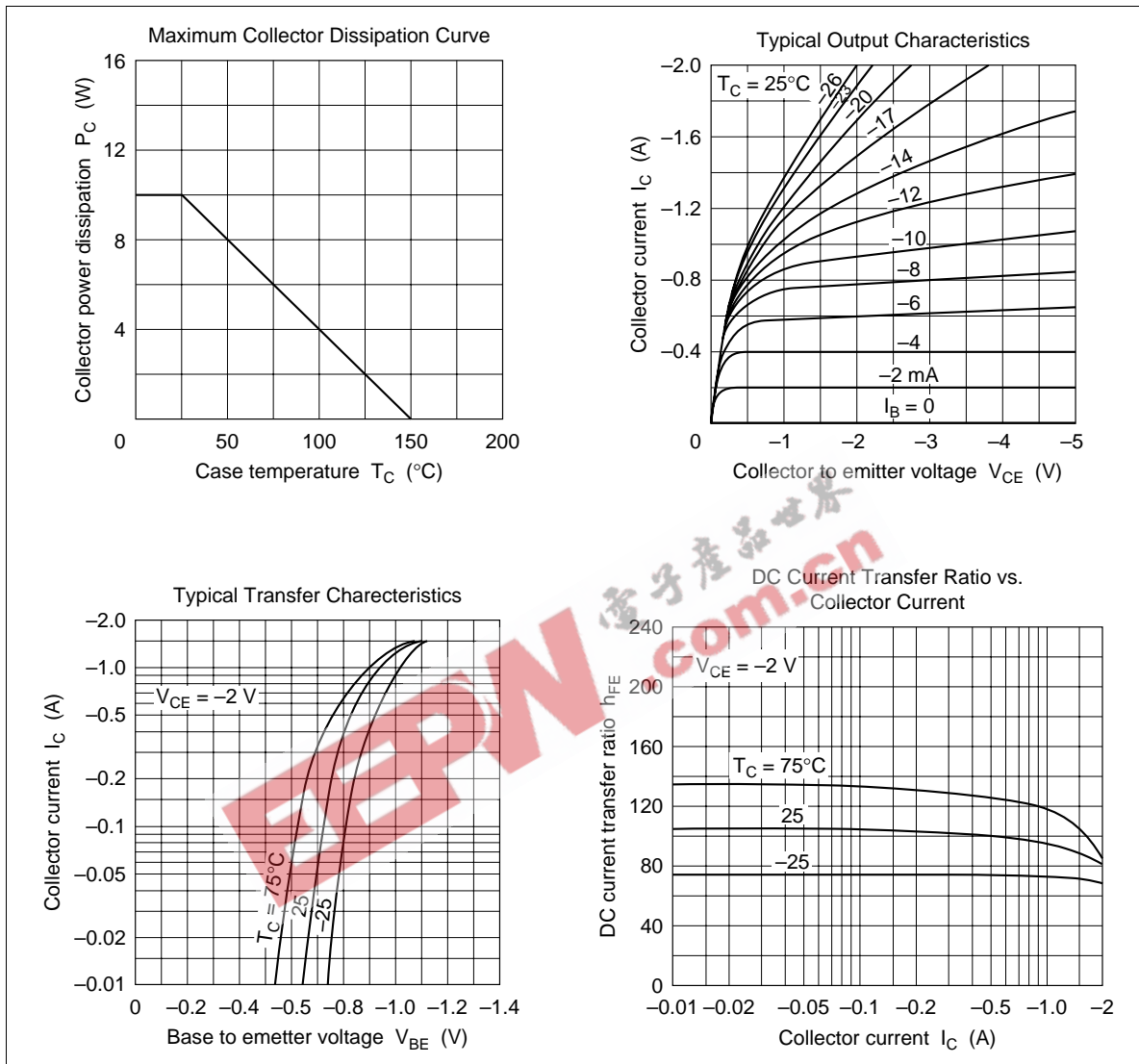
| Item | Symbol | Min | Typ | Max | Unit | Test conditions |
|---|---------------|-----|------|------|---------------|---|
| Collector to base breakdown voltage | $V_{(BR)CBO}$ | -35 | — | — | V | $I_C = -1 \text{ mA}, I_E = 0$ |
| Collector to emitter breakdown voltage | $V_{(BR)CEO}$ | -35 | — | — | V | $I_C = -10 \text{ mA}, R_{BE} = \infty$ |
| Emitter to base breakdown voltage | $V_{(BR)EBO}$ | -5 | — | — | V | $I_E = -1 \text{ mA}, I_C = 0$ |
| Collector cutoff current | I_{CBO} | — | — | -20 | μA | $V_{CB} = -35 \text{ V}, I_E = 0$ |
| DC current transfer ratio | h_{FE}^{*1} | 60 | — | 320 | | $V_{CE} = -2 \text{ V}, I_C = -0.5 \text{ A}$ |
| | h_{FE} | 20 | — | — | | $V_{CE} = -2 \text{ V}, I_C = -1.5 \text{ A}$ (Pulse test) |
| Base to emitter voltage | V_{BE} | — | -1.0 | -1.5 | V | $V_{CE} = -2 \text{ V}, I_C = -1.5 \text{ A}$ (Pulse test) |
| Collector to emitter saturation voltage | $V_{CE(sat)}$ | — | -0.5 | -1.0 | V | $I_C = -2 \text{ A}, I_B = -0.2 \text{ A}$ (Pulse test) |
| Gain bandwidth product | f_T | — | 160 | — | MHz | $V_{CE} = -2 \text{ V}, I_C = -0.2 \text{ A}$ (Pulse test) |

Note: 1. The 2SA715 is grouped by h_{FE} as follows.

| B | C | D |
|-----------|------------|------------|
| 60 to 120 | 100 to 200 | 160 to 320 |

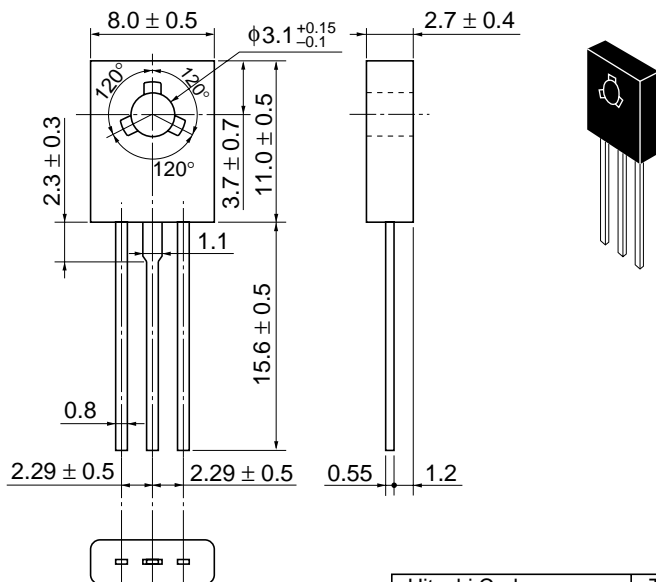


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Unit: mm



| | |
|--------------------------|------------|
| Hitachi Code | TO-126 Mod |
| JEDEC | — |
| EIAJ | — |
| Weight (reference value) | 0.67 g |

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