

2SD1263, 2SD1263A

Silicon NPN triple diffusion planar type

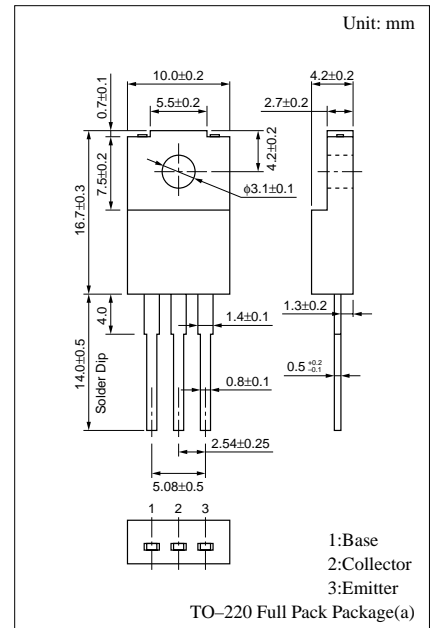
For power amplification

■ Features

- High collector to base voltage V_{CBO}
- Full-pack package which can be installed to the heat sink with one screw

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

| Parameter | Symbol | Rated | Unit |
|------------------------------|-----------|-------------|------------------|
| Collector to base voltage | V_{CBO} | 350 | V |
| Collector to emitter voltage | V_{CEO} | 250 | V |
| Emitter to base voltage | V_{EBO} | 5 | V |
| Peak collector current | I_{CP} | 1.5 | A |
| Collector current | I_C | 0.75 | A |
| Collector power dissipation | P_C | 35 | W |
| | | 2 | W |
| Junction temperature | T_j | 150 | $^\circ\text{C}$ |
| Storage temperature | T_{stg} | -55 to +150 | $^\circ\text{C}$ |

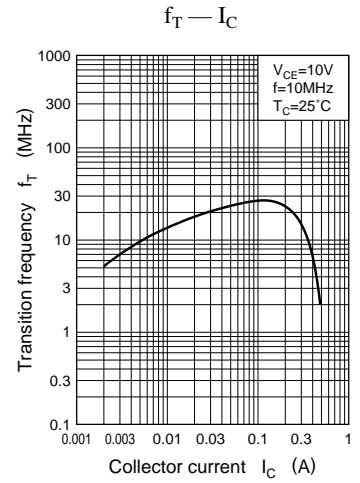
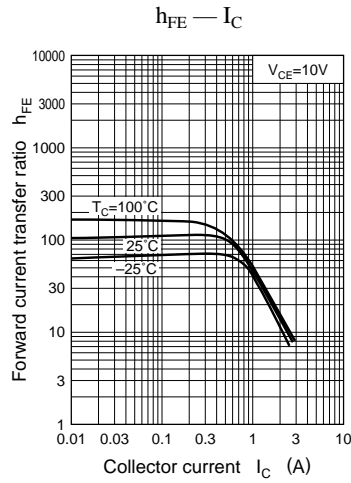
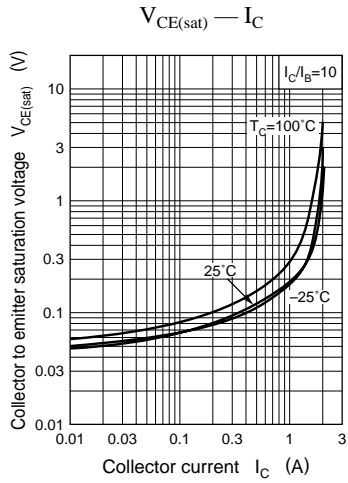
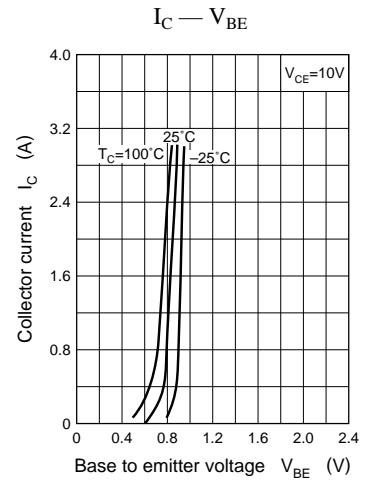
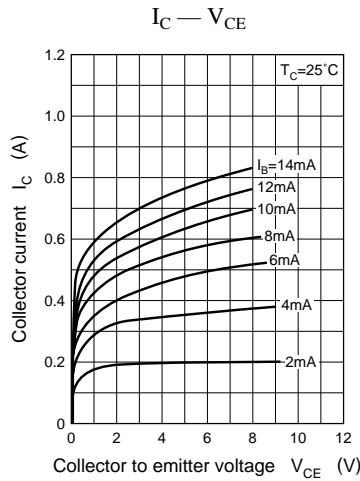
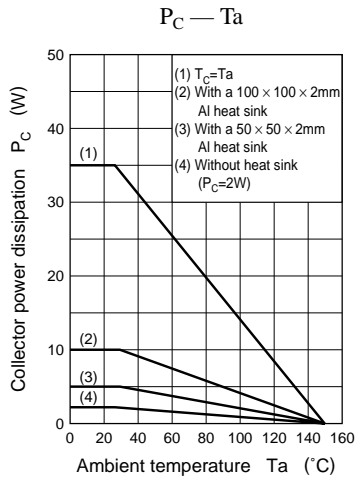


■ Electrical Characteristics ($T_C=25^\circ\text{C}$)

| Parameter | Symbol | Conditions | min | typ | max | Unit |
|---|---------------|---|-----|-----|-----|---------------|
| Collector cutoff current | I_{CES} | $V_{CE} = 350\text{V}, V_{BE} = 0$ | | | 1 | mA |
| | | $V_{CE} = 400\text{V}, V_{BE} = 0$ | | | 1 | mA |
| Collector cutoff current | I_{CEO} | $V_{CE} = 150\text{V}, I_B = 0$ | | | 1 | mA |
| | | $V_{CE} = 200\text{V}, I_B = 0$ | | | 1 | mA |
| Emitter cutoff current | I_{EBO} | $V_{EB} = 5\text{V}, I_C = 0$ | | | 1 | mA |
| Collector to emitter voltage | V_{CEO} | $I_C = 30\text{mA}, I_B = 0$ | 250 | | | V |
| | | | 300 | | | V |
| Forward current transfer ratio | h_{FE1}^* | $V_{CE} = 10\text{V}, I_C = 0.3\text{A}$ | 70 | | 250 | |
| | h_{FE2} | $V_{CE} = 10\text{V}, I_C = 1\text{A}$ | 10 | | | |
| Base to emitter voltage | V_{BE} | $V_{CE} = 10\text{V}, I_C = 1\text{A}$ | | | 1.5 | V |
| Collector to emitter saturation voltage | $V_{CE(sat)}$ | $I_C = 1\text{A}, I_B = 0.2\text{A}$ | | | 1 | V |
| Transition frequency | f_T | $V_{CE} = 5\text{V}, I_C = 0.5\text{A}, f = 10\text{MHz}$ | | 30 | | MHz |
| Turn-on time | t_{on} | $I_C = 1\text{A}, I_{B1} = 0.1\text{A}, I_{B2} = -0.1\text{A}, V_{CC} = 50\text{V}$ | | 0.5 | | μs |
| Storage time | t_{stg} | | | 2 | | μs |
| Fall time | t_f | | | 0.5 | | μs |

* h_{FE1} Rank classification

| Rank | Q | P |
|-----------|-----------|------------|
| h_{FE1} | 70 to 150 | 120 to 250 |



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