

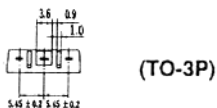
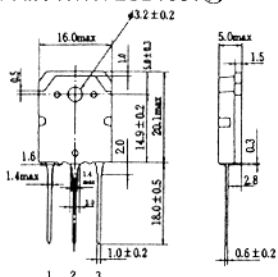
2SD1435 (K)

SILICON NPN EPITAXIAL

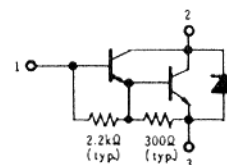
LOW FREQUENCY POWER AMPLIFIER

HIGH CURRENT SWITCHING

COMPLEMENTARY PAIR WITH 2SB1031 (K)



- 1. Base
 - 2. Collector (Flange)
 - 3. Emitter
- (Dimensions in mm)

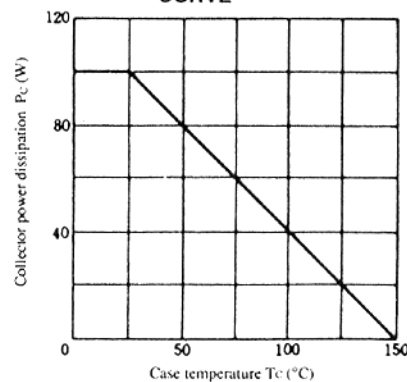


■ ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

| Item | Symbol | 2SD1435 (K) | Unit |
|------------------------------|----------------------|-------------|------|
| Collector to base voltage | V _{CB0} | 100 | V |
| Collector to emitter voltage | V _{CE0} | 100 | V |
| Emitter to base voltage | V _{EBO} | 7 | V |
| Collector current | I _C | 15 | A |
| Collector peak current | i _{c(peak)} | 20 | A |
| Base current | I _B | 3 | A |
| Collector power dissipation | P _{C*} | 100 | W |
| Junction temperature | T _j | 150 | °C |
| Storage temperature | T _{sig} | -55 to +150 | °C |

* Value at T_C = 25°C.

MAXIMUM COLLECTOR DISSIPATION CURVE

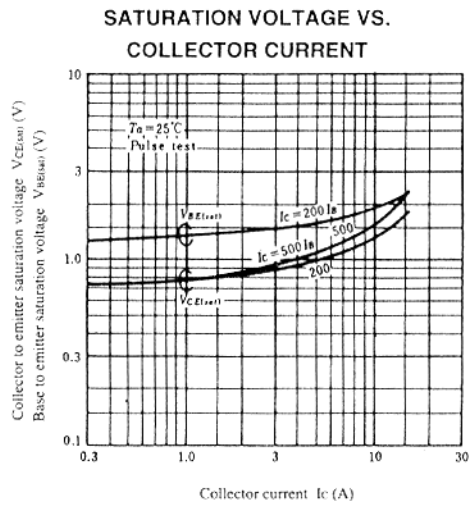
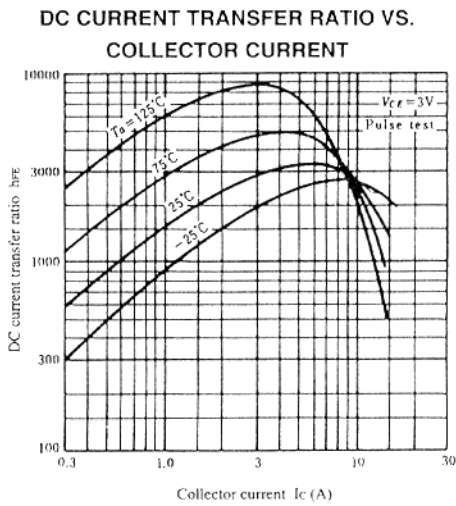
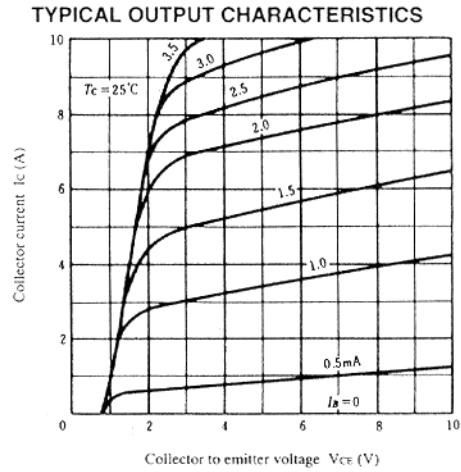
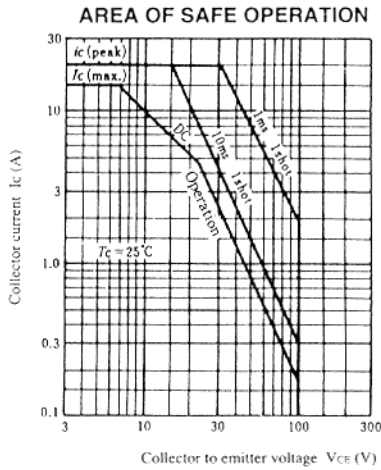


■ ELECTRICAL CHARACTERISTICS (Ta=25°C)

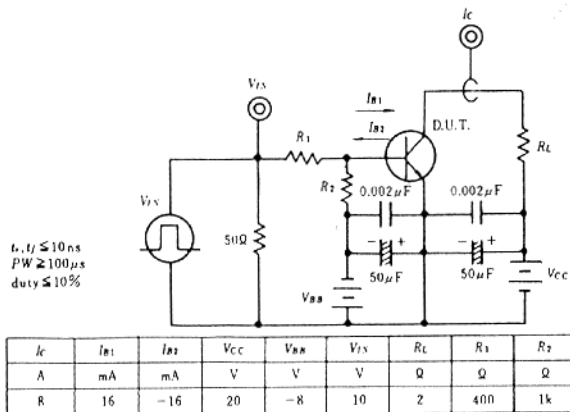
| Item | Symbol | Test Condition | min. | typ. | max. | Unit |
|---|-----------------------|--|------|------|-------|------|
| Collector to emitter breakdown voltage | V _{(BR)CEO} | I _C = 1mA, R _{BE} = ∞ | 100 | — | — | V |
| Emitter to base breakdown voltage | V _{(BR)EBO} | I _E = 50mA, I _C = 0 | 7 | — | — | V |
| Collector to emitter sustain voltage | V _{CE0(sus)} | I _C = 200mA, R _{BE} = ∞* | 100 | — | — | V |
| Collector cutoff current | I _{CB0} | V _{CB} = 100V, I _E = 0 | — | — | 100 | μA |
| | I _{CE0} | V _{CE} = 80V, R _{BE} = ∞ | — | — | 1.0 | μA |
| DC current transfer ratio | h _{FE} | V _{CE} = 3V, I _C = 8A* | 1000 | — | 20000 | |
| Collector to emitter saturation voltage | V _{CE(sat)1} | I _C = 8A, I _B = 16mA* | — | — | 2.0 | V |
| Base to emitter saturation voltage | V _{BE(sat)1} | | — | — | 2.5 | V |
| Collector to emitter saturation voltage | V _{CE(sat)2} | I _C = 15A, I _B = 150mA* | — | — | 3.0 | V |
| Base to emitter saturation voltage | V _{BE(sat)2} | | — | — | 3.5 | V |
| Turn on time | t _{on} | I _C = 8A, I _{B1} = -I _{B2} = 16mA | — | 2 | — | μs |
| Turn off time | t _{off} | | — | 8 | — | μs |

* Pulse Test.

2SD1435



SWITCHING TIME TEST CIRCUIT



RESPONSE WAVEFORM

