

# 2SD2263

Silicon NPN Epitaxial

# HITACHI

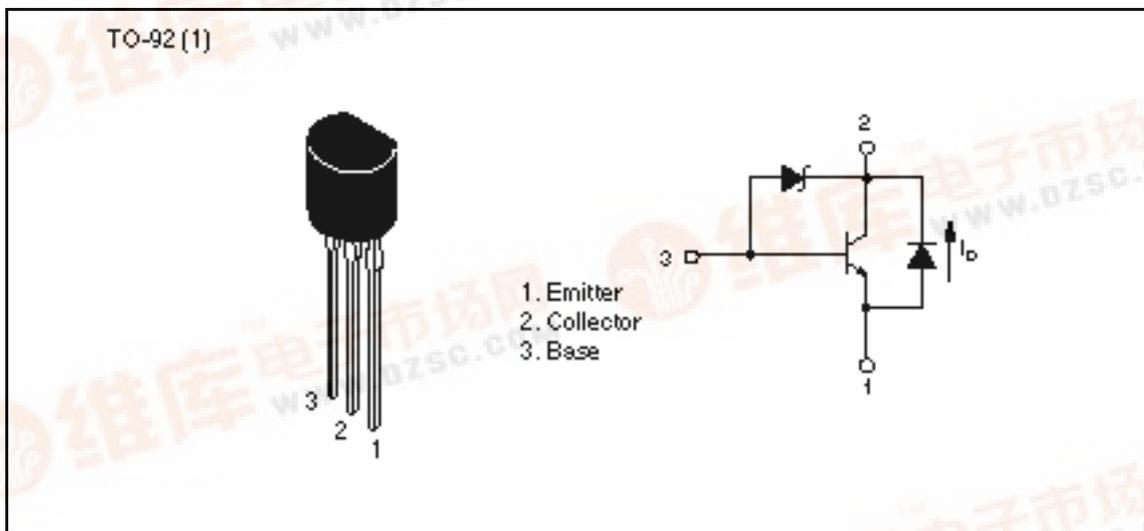
## Application

Low frequency power amplifier

## Features

- Built in zener diode for surge absorb.
- Suitable for relay drive with small power loss.

## Outline



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## 2SD2263

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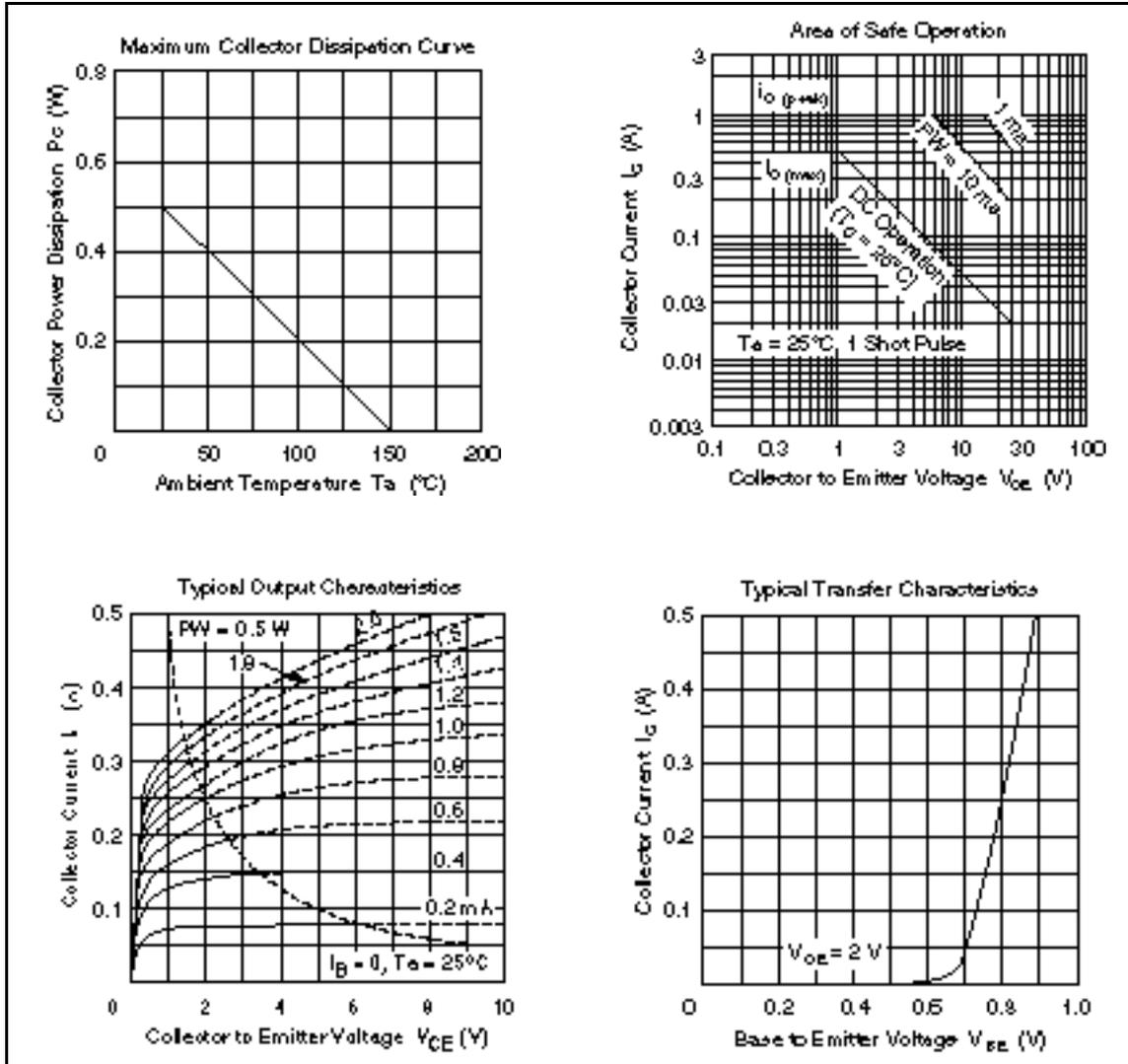
### Absolute Maximum Ratings (Ta = 25°C)

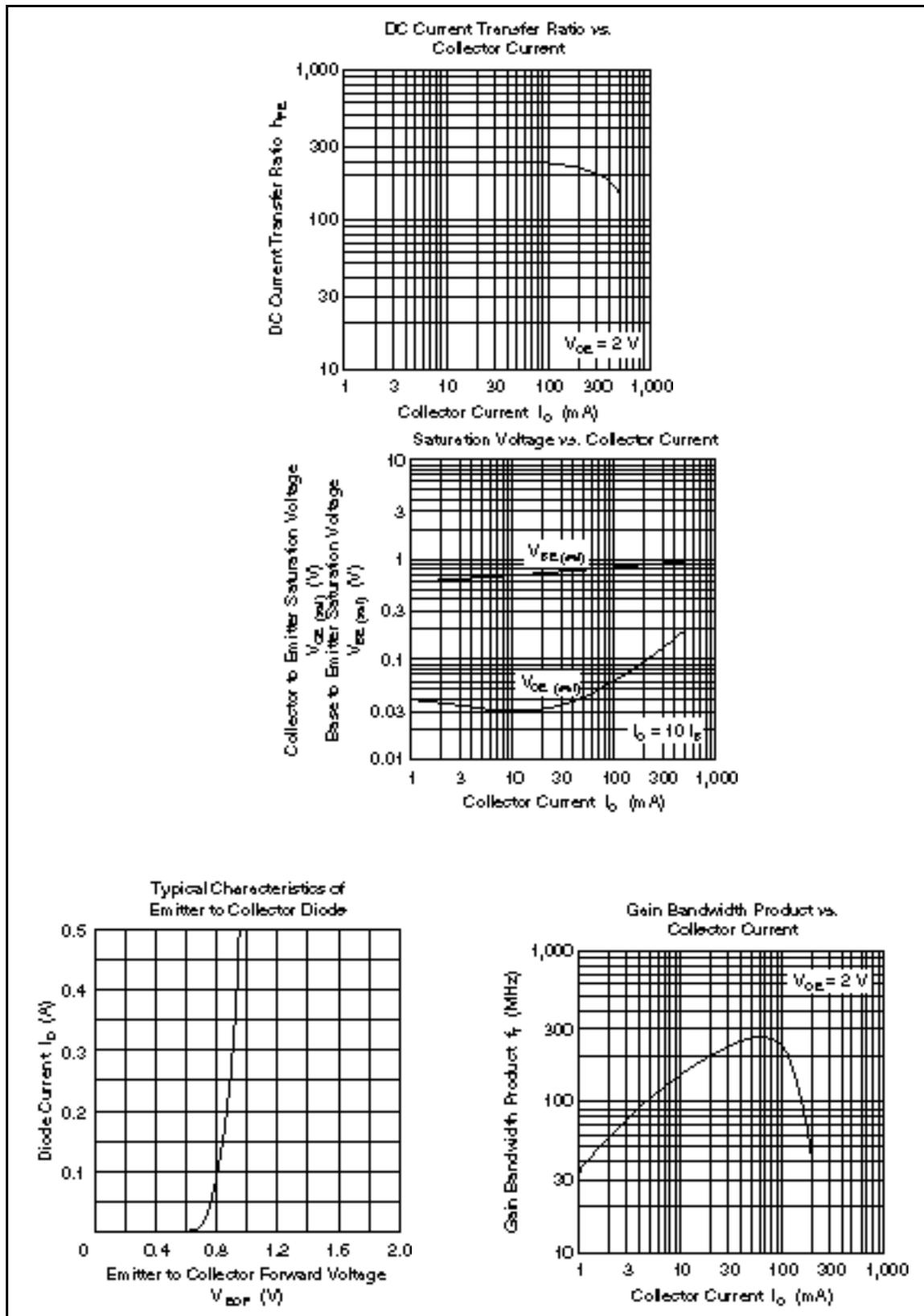
| Item                         | Symbol               | Ratings     | Unit |
|------------------------------|----------------------|-------------|------|
| Collector to base voltage    | $V_{CBO}$            | 25          | V    |
| Collector to emitter voltage | $V_{CEO}$            | 25          | V    |
| Emitter to base voltage      | $V_{EBO}$            | 6           | V    |
| Collector current            | $I_C$                | 0.5         | A    |
| Collector peak current       | $i_{C(\text{peak})}$ | 1.0         | A    |
| E to C diode current         | $I_D$                | 0.5         | A    |
| Collector power dissipation  | $P_C$                | 0.5         | W    |
| Junction temperature         | $T_j$                | 150         | °C   |
| Storage temperature          | $T_{\text{stg}}$     | -55 to +150 | °C   |

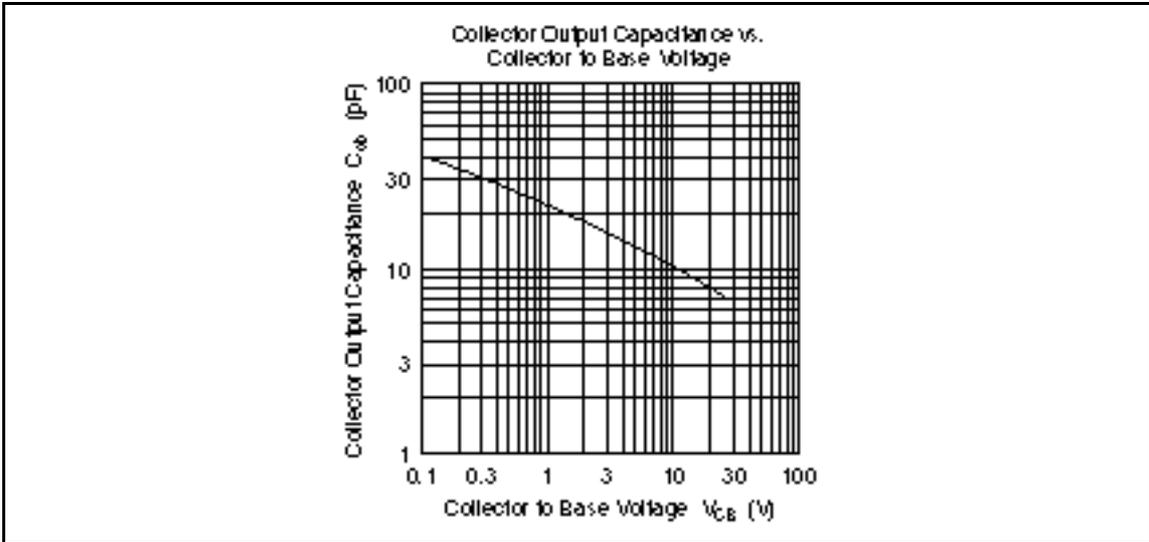
### Electrical Characteristics (Ta = 25°C)

| Item                                    | Symbol                | Min | Typ | Max | Unit          | Test conditions   |
|---|-----------------------|-----|-----|-----|---------------|---|
| Collector to base breakdown voltage     | $V_{(BR)CBO}$         | 25  | —   | —   | V             | $I_C = 10 \mu\text{A}$ , $I_E = 0$                          |
| Collector to emitter breakdown voltage  | $V_{(BR)CEO}$         | 25  | —   | 35  | V             | $I_C = 1 \text{ mA}$ , $R_{BE} =$                           |
| Collector to emitter sustaining voltage | $V_{CEO(\text{sus})}$ | 26  | —   | 36  | V             | $I_C = 0.5 \text{ A}$ , $R_{BE} =$ ,<br>$L = 20 \text{ mH}$ |
| Emitter to base breakdown voltage       | $V_{(BR)EBO}$         | 6   | —   | —   | V             | $I_E = 10 \mu\text{A}$ , $I_C = 0$                          |
| Collector cutoff current                | $I_{CBO}$             | —   | —   | 0.2 | $\mu\text{A}$ | $V_{CB} = 20 \text{ V}$ , $I_E = 0$                         |
|   | $I_{CEO}$             | —   | —   | 0.5 | $\mu\text{A}$ | $V_{CE} = 20 \text{ V}$ , $R_{BE} =$                        |
| Emitter cutoff current                  | $I_{EBO}$             | —   | —   | 0.2 | $\mu\text{A}$ | $V_{EB} = 5 \text{ V}$ , $I_C = 0$                          |
| DC current transfer ratio               | $h_{FE1}$             | 100 | —   | 500 |               | $V_{CE} = 2 \text{ V}$ , $I_C = 50 \text{ mA}^{*1}$         |
|   | $h_{FE2}$             | 50  | —   | —   |               | $V_{CE} = 2 \text{ V}$ , $I_C = 0.5 \text{ A}^{*1}$         |
| Collector to emitter saturation voltage | $V_{CE(\text{sat})}$  | —   | —   | 0.5 | V             | $I_C = 0.5 \text{ A}^{*1}$ , $I_B = 50 \text{ mA}$          |
| E to C diode forward voltage            | $V_D$                 | —   | —   | 1.2 | V             | $I_E = 0.5 \text{ A}^{*1}$                                  |

Note: 1. Pulse test







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