# Low Frequency Transistor (20V, 3A) 2SD2264

#### Features

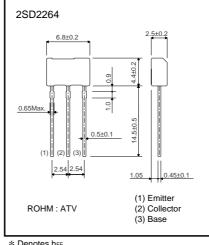
1) Low VCE(sat).  $V_{CE(sat)} = 0.2V(Typ.)$  $(I_{C} / I_{B} = 2A / 0.1A)$ 

2) Excellent current gain characteristics.

#### Structure

Epitaxial planar type NPN silicon transistor

#### •External dimensions (Unit : mm)



\* Denotes hre

#### ●Absolute maximum ratings (Ta=25°C)

| Parameter                   | Symbol | Limits      | Unit         |
|-----------------------------|--------|-------------|--------------|
| Collector-base voltage      | Vсво   | 40          | V            |
| Collector-emitter voltage   | Vceo   | 20          | V            |
| Emitter-base voltage        | Vево   | 6           | V            |
| Collector current           | lc     | 3           | A (DC)       |
|                             |        | 5           | A (Pulse) *1 |
| Collector power dissipation | Pc     | 1           | W *2         |
| Junction temperature        | Tj     | 150         | °C           |
| Storage temperature         | Tstg   | -55 to +150 | °C           |
|                             |        |             |              |

\*1 Single pulse Pw=10ms

\*2 Printed circuit board, 1.7mm thick, collector copper plating 100mm<sup>2</sup> or larger.

## Transistors

#### •Electrical characteristics (Ta=25°C)

| Parameter                            | Symbol   | Min. | Тур. | Max. | Unit | Conditions                  |   |
|--------------------------------------|----------|------|------|------|------|-----------------------------|---|
| Collector-base breakdown voltage     | ВУсво    | 40   | -    | -    | V    | Ic=50μA                     |   |
| Collector-emitter breakdown voltage  | BVCEO    | 20   | -    | -    | V    | Ic=1mA                      |   |
| Emitter-base breakdown voltage       | ВVево    | 6    | _    | _    | V    | Ιε=50μΑ                     |   |
| Collector cutoff current             | Ісво     | -    | -    | 0.1  | μA   | Vcb=30V                     |   |
| Emitter cutoff current               | Іево     | -    | _    | 0.1  | μA   | Veb=5V                      |   |
| Collector-emitter saturation voltage | VCE(sat) | -    | 0.2  | 0.5  | V    | Ic/Iв=2A/0.1A               | * |
| DC current transfer ratio            | hfe      | 180  | -    | 390  | -    | Vce=2V, Ic=0.1A             |   |
| Transition frequency                 | f⊤       | -    | 290  | _    | MHz  | Vce=2V, Ie= -0.5A, f=100MHz |   |
| Output capacitance                   | Cob      | -    | 25   | -    | pF   | Vce=10V, Ie=0A, f=1MHz      |   |

\* Measured using pulse current.

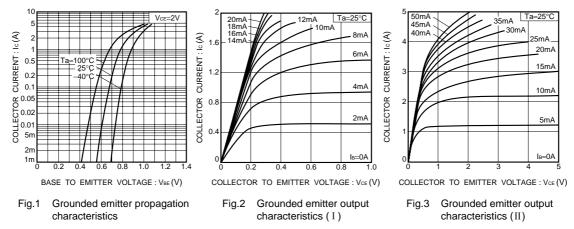
#### ●Packaging specifications and hFE

|         |     | Package                         | Taping |
|---------|-----|---------------------------------|--------|
|         |     | Code                            | TV2    |
| Туре    | hfe | Basic ordering<br>unit (pieces) | 2500   |
| 2SD2264 | R   |                                 | 0      |

hre values are classified as follows :

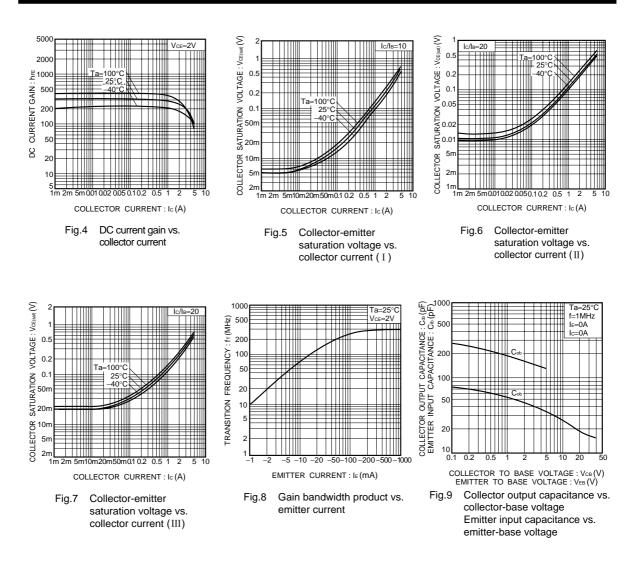
| Item | R          |
|------|------------|
| hfe  | 180 to 390 |

#### •Electrical characteristic curves



# 2SD2264

### Transistors



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