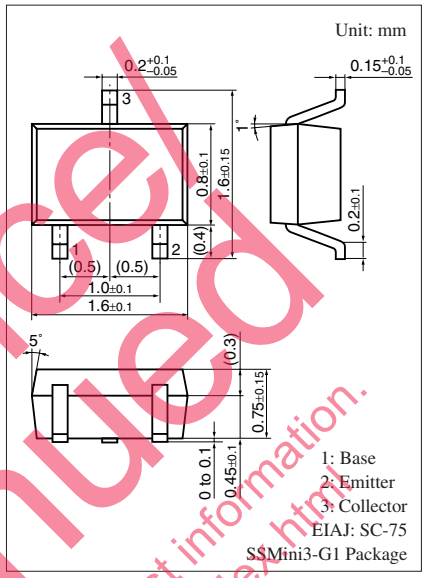
# 2SA1791

## Silicon PNP epitaxial planar type

For low-frequency amplification
Complementary to 2SC4656




Marking Symbol: AL

### ■ Features

- High forward current transfer ratio $f_T$
- Small collector output capacitance $C_{ob}$
- SS-Mini type package allowing downsizing of the equipment and automatic insertion through the tape packing

### ■ Absolute Maximum Ratings $T_a = 25°C$

| Parameter | Symbol | Rating | Unit |
|---|---|---|---|
| Collector-base voltage (Emitter open) | $V_{CBO}$ | −50 | V |
| Collector-emitter voltage (Base open) | $V_{CEO}$ | −50 | V |
| Emitter-base voltage (Collector open) | $V_{EBO}$ | −5 | V |
| Collector current | $I_C$ | −50 | mA |
| Collector power dissipation | $P_C$ | 125 | mW |
| Junction temperature | $T_j$ | 125 | °C |
| Storage temperature | $T_{stg}$ | −55 to +125 | °C |

### ■ Electrical Characteristics $T_a = 25°C \pm 3°C$

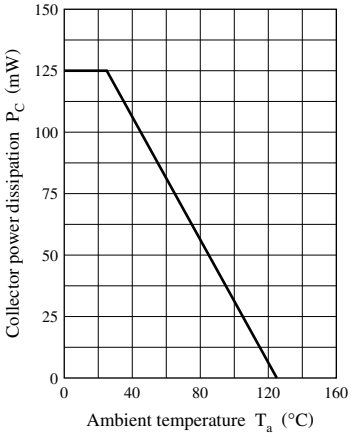
| Parameter | Symbol | Conditions | Min | Typ | Max | Unit |
|---|---|---|---|---|---|---|
| Collector-base voltage (Emitter open) | $V_{CBO}$ | $I_C = -10$ µA, $I_E = 0$ | −50 | | | V |
| Collector-emitter voltage (Base open) | $V_{CEO}$ | $I_C = -1$ mA, $I_B = 0$ | −50 | | | V |
| Emitter-base voltage (Collector open) | $V_{EBO}$ | $I_E = -10$ µA, $I_C = 0$ | −5 | | | V |
| Collector-base cutoff current (Emitter open) | $I_{CBO}$ | $V_{CB} = -10$ V, $I_E = 0$ | | | − 0.1 | µA |
| Collector-emitter cutoff current (Base open) | $I_{CEO}$ | $V_{CE} = -10$ V, $I_B = 0$ | | | −100 | µA |
| Forward current transfer ratio * | $h_{FE}$ | $V_{CE} = -10$ V, $I_C = -2$ mA | 200 | | 500 | — |
| Collector-emitter saturation voltage | $V_{CE(sat)}$ | $I_C = -10$ mA, $I_B = -1$ mA | | − 0.1 | − 0.3 | V |
| Transition frequency | $f_T$ | $V_{CB} = -10$ V, $I_E = 2$ mA, f = 200 MHz | | 250 | | MHz |
| Collector output capacitance (Common base, input open circuited) | $C_{ob}$ | $V_{CB} = -10$ V, $I_E = 0$, f = 1 MHz | | 1.5 | | pF |

Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.
2. *: Rank classification

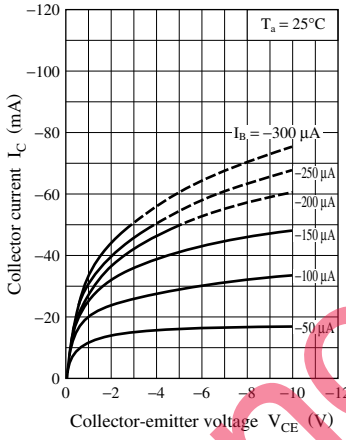
| Rank | Q | R |
|---|---|---|
| $h_{FE}$ | 200 to 400 | 250 to 500 |

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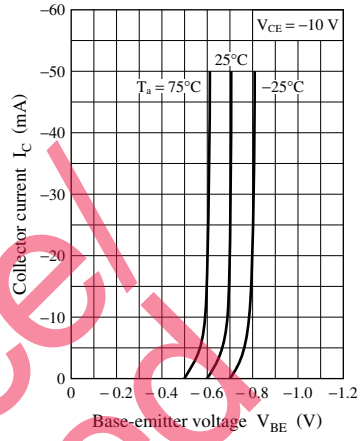
$P_C$ — $T_a$



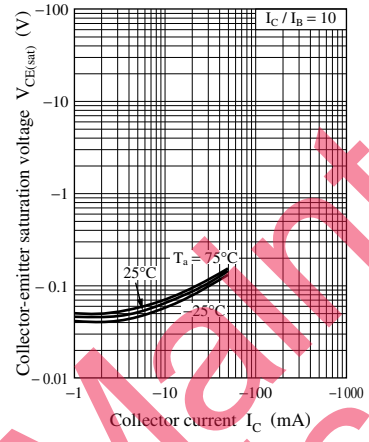

$I_C$ — $V_{CE}$



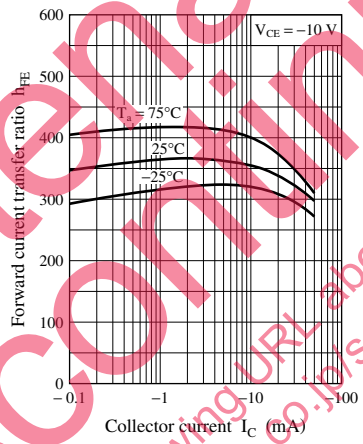

$I_C$ — $V_{BE}$



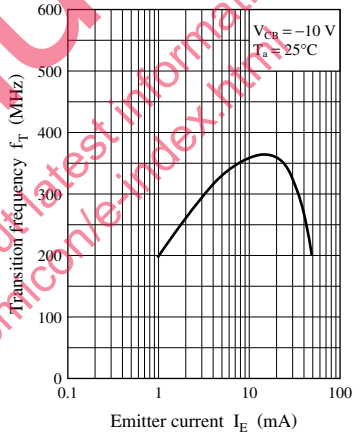

$V_{CE(sat)}$ — $I_C$



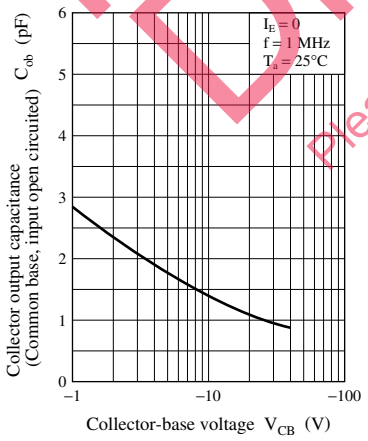

$h_{FE}$ — $I_C$




$f_T$ — $I_E$




$C_{ob}$ — $V_{CB}$




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