# 2SB0792, 2SB0792A (2SB792, 2SB792A)

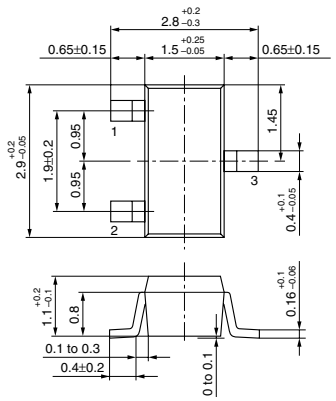
## Silicon PNP epitaxial planer type

For high breakdown voltage low-noise amplification
Complementary to 2SD0814 (2SD814)

### Features

- High collector to emitter voltage $V_{CEO}$.
- Low noise voltage NV.
- Mini type package, allowing downsizing of the equipment and automatic insertion through the tape packing and the magazine packing.

Unit: mm




1:Base
2:Emitter
3:Collector

JEDEC:TO–236
EIAJ:SC–59
Mini Type Package

Marking symbol : I(2SB0792)
2F(2SB0792A)

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

| Parameter | | Symbol | Ratings | Unit |
|---|---|---|---|---|
| Collector to base voltage | 2SB0792 | $V_{CBO}$ | –150 | V |
| | 2SB0792A | | –185 | |
| Collector to emitter voltage | 2SB0792 | $V_{CEO}$ | –150 | V |
| | 2SB0792A | | –185 | |
| Emitter to base voltage | | $V_{EBO}$ | –5 | V |
| Peak collector current | | $I_{CP}$ | –100 | mA |
| Collector current | | $I_C$ | –50 | mA |
| Collector power dissipation | | $P_C$ | 200 | mW |
| Junction temperature | | $T_j$ | 150 | ˚C |
| Storage temperature | | $T_{stg}$ | –55 ~ +150 | ˚C |

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

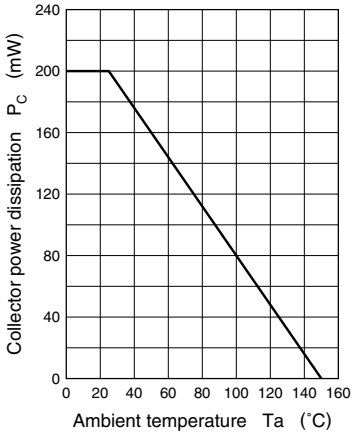
| Parameter | | Symbol | Conditions | min | typ | max | Unit |
|---|---|---|---|---|---|---|---|
| Collector cutoff current | | $I_{CBO}$ | $V_{CB}$ = –100V, $I_E$ = 0 | | | –1 | μA |
| Collector to emitter voltage | 2SB0792 | $V_{CEO}$ | $I_C$ = –100μA, $I_B$ = 0 | –150 | | | V |
| | 2SB0792A | | | –185 | | | |
| Emitter to base voltage | | $V_{EBO}$ | $I_E$ = –10μA, $I_C$ = 0 | –5 | | | V |
| Forward current transfer ratio | 2SB0792 | $h_{FE}$* | $V_{CE}$ = –5V, $I_C$ = –10mA | 130 | | 450 | |
| | 2SB0792A | | | 130 | | 330 | |
| Collector to emitter saturation voltage | | $V_{CE(sat)}$ | $I_C$ = –30μA, $I_B$ = –3mA | | | –1 | V |
| Transition frequency | | $f_T$ | $V_{CB}$ = –10V, $I_E$ = 10mA, f = 200MHz | | 200 | | MHz |
| Collector output capacitance | | $C_{ob}$ | $V_{CB}$ = –10V, $I_E$ = 0, f = 1MHz | | 4 | | pF |
| Noise voltage | | NV | $V_{CE}$ = –10V, $I_C$ = –1mA, $G_V$ = 80dB, $R_g$ = 100kΩ, Function = FLAT | | 150 | | mV |

*$h_{FE}$ Rank classification

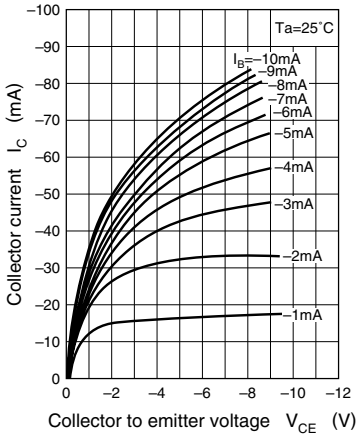
| Rank | | R | S | T |
|---|---|---|---|---|
| $h_{FE}$ | | 130 ~ 220 | 185 ~ 330 | 260 ~ 450 |
| Marking Symbol | 2SB0792 | IR | IS | IT |
| | 2SB0792A | 2FR | 2FS | — |

Note.) The Part numbers in the Parenthesis show conventional part number.

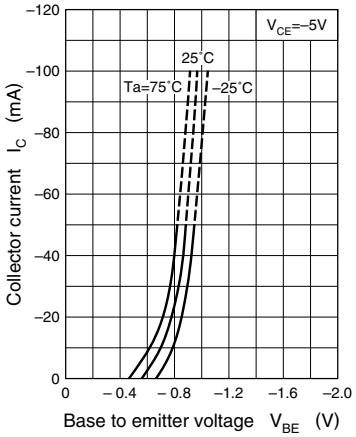
$P_C$ — Ta



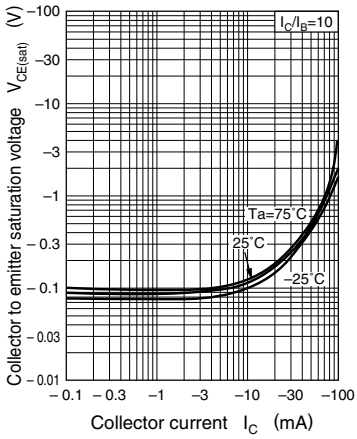

$I_C$ — $V_{CE}$



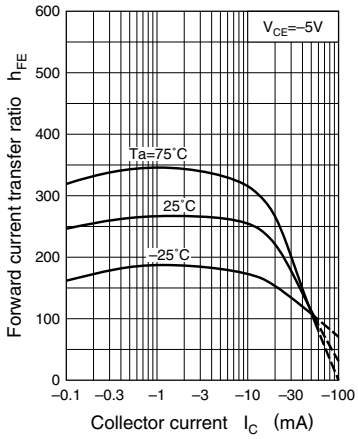

$I_C$ — $V_{BE}$



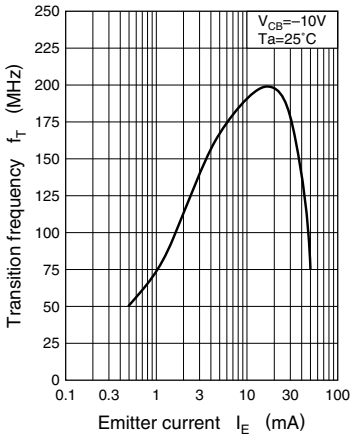

$V_{CE(sat)}$ — $I_C$



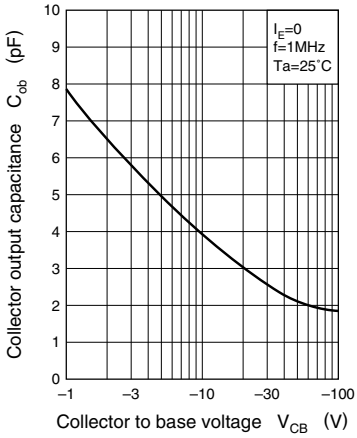

$h_{FE}$ — $I_C$




$f_T$ — $I_E$




$C_{ob}$ — $V_{CB}$



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