

# 2SD468

Silicon NPN Epitaxial

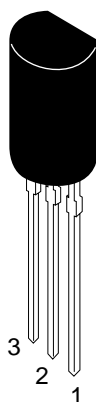
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## Application

- Low frequency power amplifier
- Complementary pair with 2SB562

## Outline

TO-92MOD



1. Emitter
2. Collector
3. Base

**Absolute Maximum Ratings** ( $T_a = 25^\circ\text{C}$ )

Item	Symbol	Ratings	Unit
Collector to base voltage	$V_{\text{CBO}}$	25	V
Collector to emitter voltage	$V_{\text{CEO}}$	20	V
Emitter to base voltage	$V_{\text{EBO}}$	5	V
Collector current	$I_{\text{C}}$	1.0	A
Collector peak current	$i_{\text{C(peak)}}$	1.5	A
Collector power dissipation	$P_{\text{C}}$	0.9	W
Junction temperature	$T_{\text{j}}$	150	$^\circ\text{C}$
Storage temperature	$T_{\text{stg}}$	-55 to +150	$^\circ\text{C}$

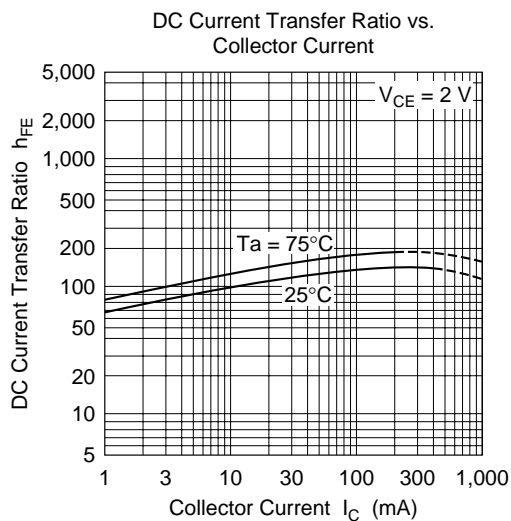
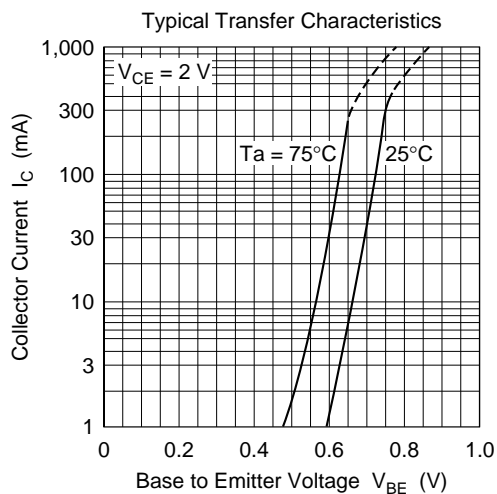
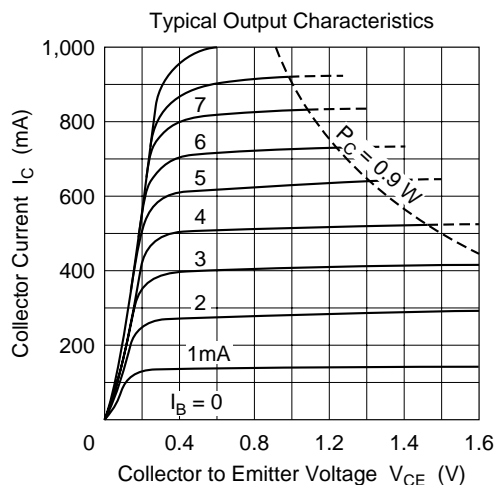
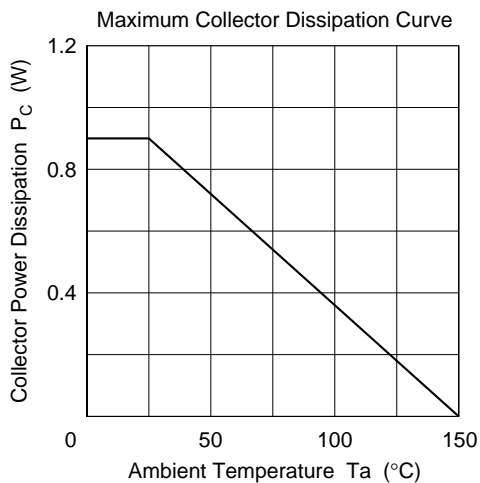
**Electrical Characteristics** ( $T_a = 25^\circ\text{C}$ )

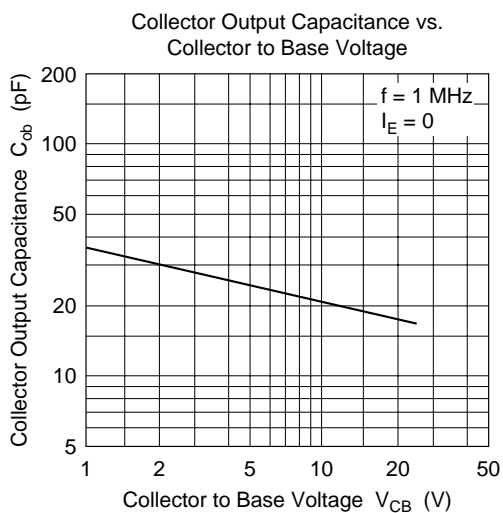
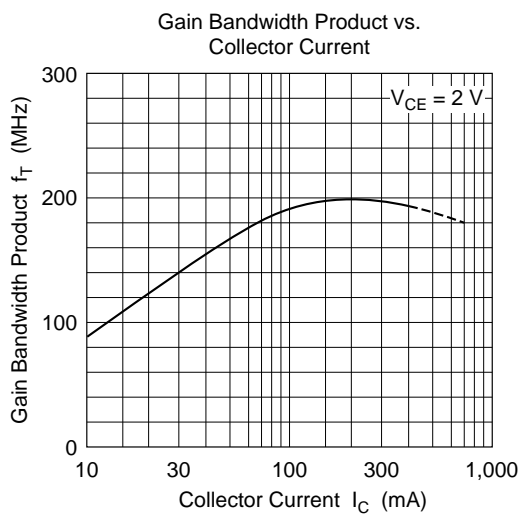
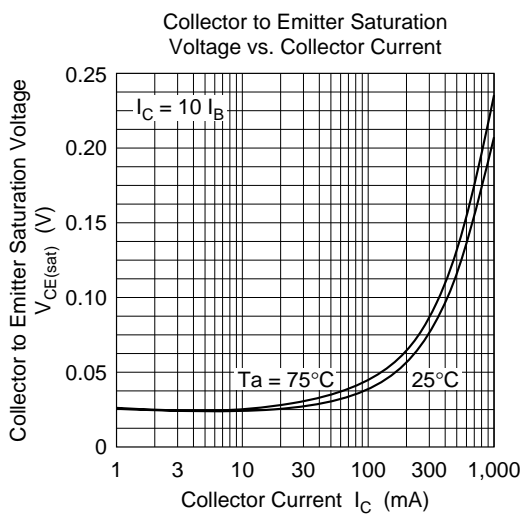
Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to base breakdown voltage	$V_{(\text{BR})\text{CBO}}$	25	—	—	V	$I_{\text{C}} = 10\text{ }\mu\text{A}$ , $I_{\text{E}} = 0$
Collector to emitter breakdown voltage	$V_{(\text{BR})\text{CEO}}$	20	—	—	V	$I_{\text{C}} = 1\text{ mA}$ , $R_{\text{BE}} = \infty$
Emitter to base breakdown voltage	$V_{(\text{BR})\text{EBO}}$	5	—	—	V	$I_{\text{E}} = 10\text{ }\mu\text{A}$ , $I_{\text{C}} = 0$
Collector cutoff current	$I_{\text{CBO}}$	—	—	1.0	$\mu\text{A}$	$V_{\text{CB}} = 20\text{ V}$ , $I_{\text{E}} = 0$
DC current transfer ratio	$h_{\text{FE}}^{*1}$	85	—	240		$V_{\text{CE}} = 2\text{ V}$ , $I_{\text{C}} = 0.5\text{ A}^{*2}$
Collector to emitter saturation voltage	$V_{\text{CE(sat)}}$	—	0.2	0.5	V	$I_{\text{C}} = 0.8\text{ A}$ , $I_{\text{B}} = 0.08\text{ A}^{*2}$
Base to emitter voltage	$V_{\text{BE}}$	—	0.79	1.0	V	$V_{\text{CE}} = 2\text{ V}$ , $I_{\text{C}} = 0.5\text{ A}^{*2}$
Gain bandwidth product	$f_{\text{T}}$	—	190	—	MHz	$V_{\text{CE}} = 2\text{ V}$ , $I_{\text{C}} = 0.5\text{ A}^{*2}$
Collector output capacitance	$C_{\text{ob}}$	—	22	—	pF	$V_{\text{CB}} = 10\text{ V}$ , $I_{\text{E}} = 0$ , $f = 1\text{ MHz}$

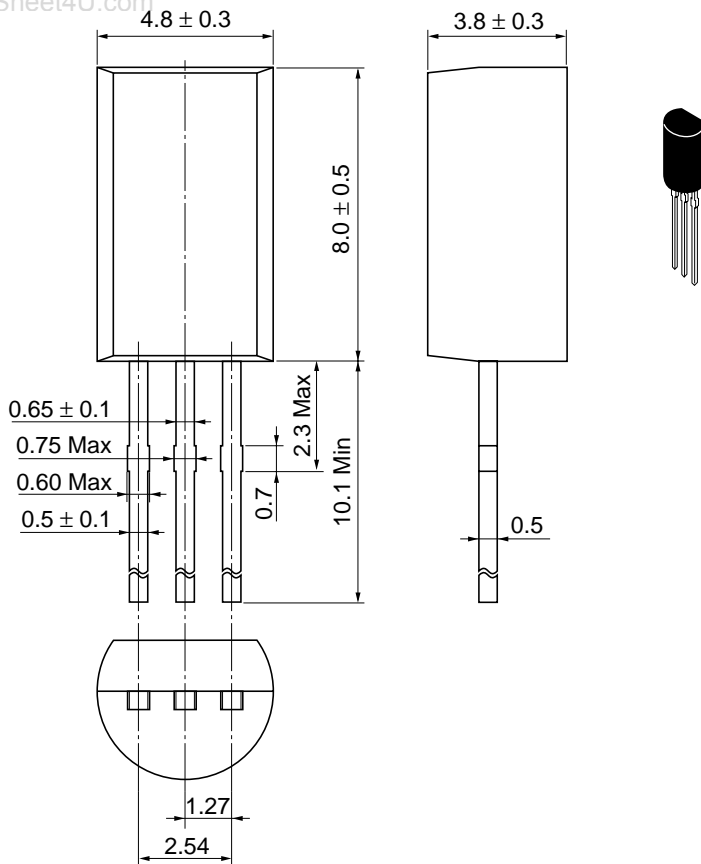
Notes: 1. The 2SD468 is grouped by  $h_{\text{FE}}$  as follows.

2. Pulse test

B	C
85 to 170	120 to 240







Hitachi Code	TO-92 Mod
JEDEC	—
EIAJ	Conforms
Weight (reference value)	0.35 g

## Cautions

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