
2SD468

Silicon NPN Epitaxial

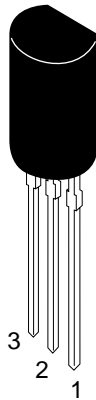
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Application

- Low frequency power amplifier
- Complementary pair with 2SB562

Outline

TO-92MOD



1. Emitter
2. Collector
3. Base

2SD468

Absolute Maximum Ratings (Ta = 25°C)

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

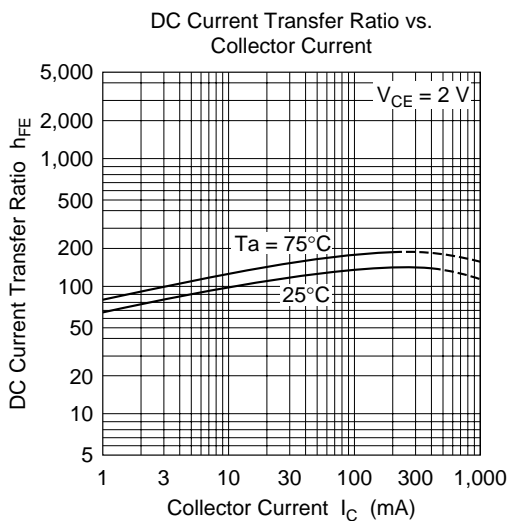
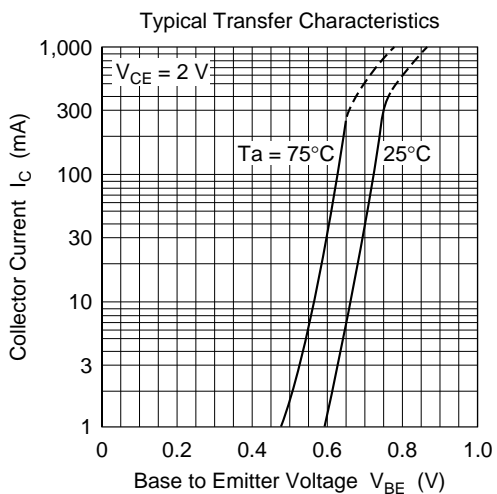
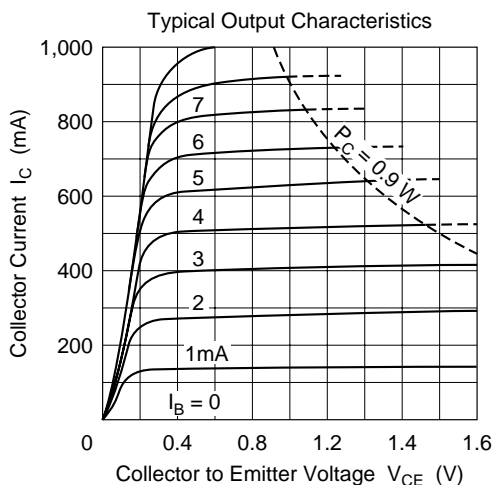
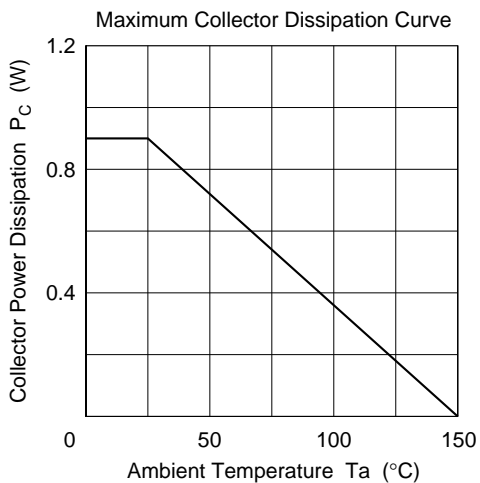
Electrical Characteristics (Ta = 25°C)

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	$V_{(BR)CEO}$	20	—	—	V	$I_C = 1 \text{ mA}, R_{BE} = \infty$
Emitter to base breakdown voltage	$V_{(BR)EBO}$	5	—	—	V	$I_E = 10 \mu\text{A}, I_C = 0$
Collector cutoff current	I_{CBO}	—	—	1.0	μA	$V_{CB} = 20 \text{ V}, I_E = 0$
DC current transfer ratio	h_{FE}^{*1}	85	—	240		$V_{CE} = 2 \text{ V}, I_C = 0.5 \text{ A}^{*2}$
Collector to emitter saturation voltage	$V_{CE(\text{sat})}$	—	0.2	0.5	V	$I_C = 0.8 \text{ A}, I_B = 0.08 \text{ A}^{*2}$
Base to emitter voltage	V_{BE}	—	0.79	1.0	V	$V_{CE} = 2 \text{ V}, I_C = 0.5 \text{ A}^{*2}$
Gain bandwidth product	f_T	—	190	—	MHz	$V_{CE} = 2 \text{ V}, I_C = 0.5 \text{ A}^{*2}$
Collector output capacitance	C_{ob}	—	22	—	pF	$V_{CB} = 10 \text{ V}, I_E = 0, f = 1 \text{ MHz}$

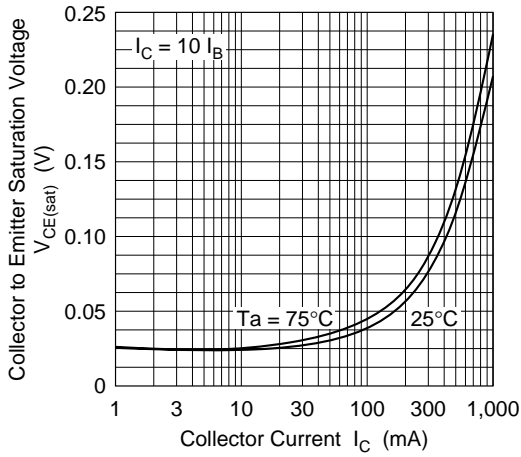
Notes: 1. The 2SD468 is grouped by h_{FE} as follows.

2. Pulse test

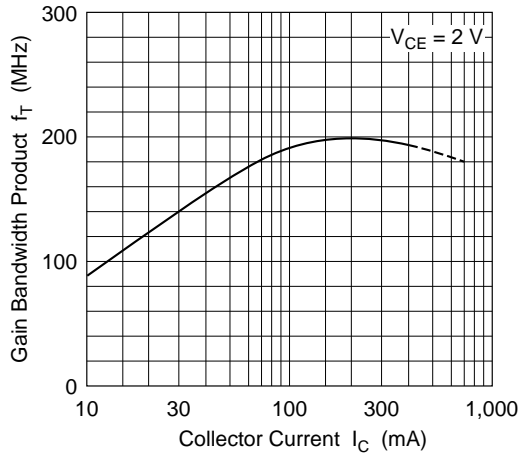
B	C
85 to 170	120 to 240



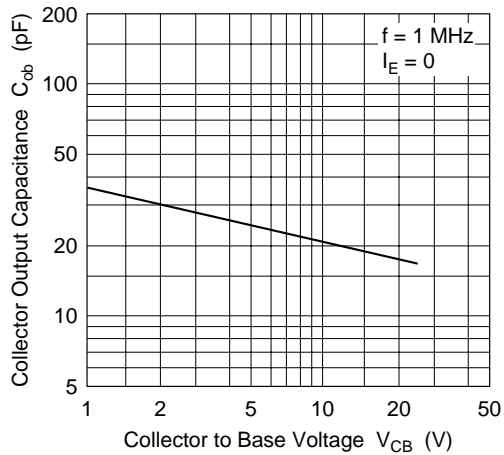
Collector to Emitter Saturation Voltage vs. Collector Current



Gain Bandwidth Product vs. Collector Current



Collector Output Capacitance vs. Collector to Base Voltage





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

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