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# 2SD467

Silicon NPN Epitaxial

# HITACHI

ADE-208-1134 (Z)  
1st. Edition  
Mar. 2001

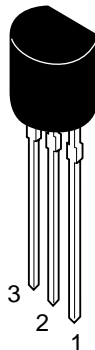
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## Application

- Low frequency power amplifier
- Complementary pair with 2SB561

## Outline

TO-92 (1)



1. Emitter
2. Collector
3. Base

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

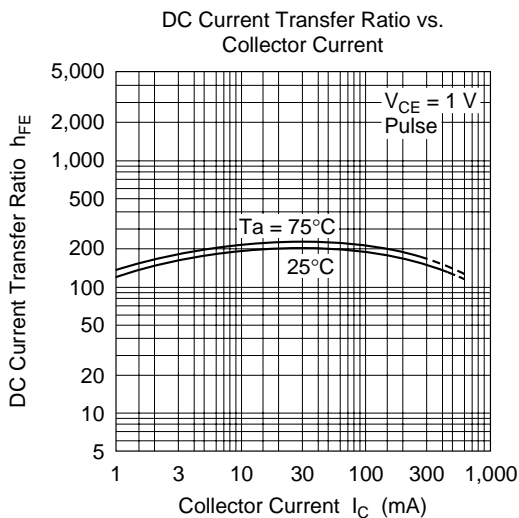
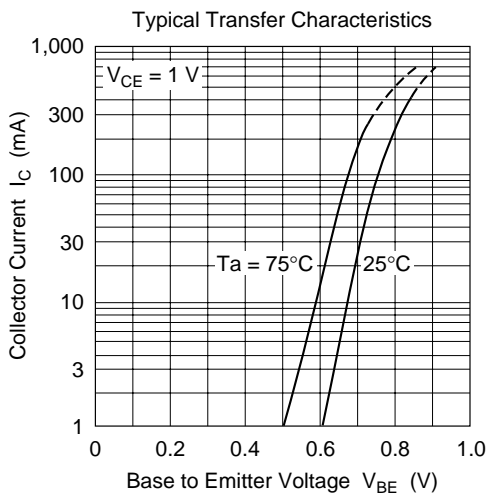
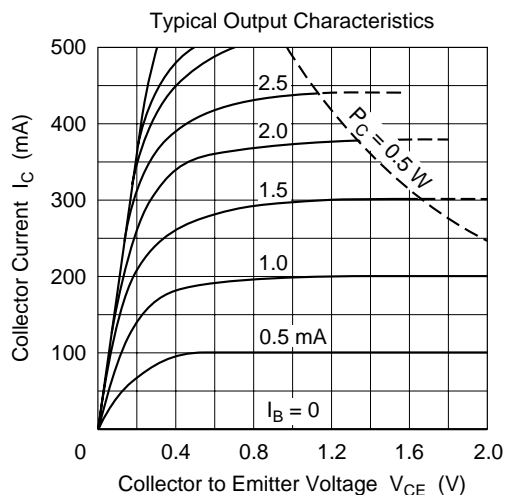
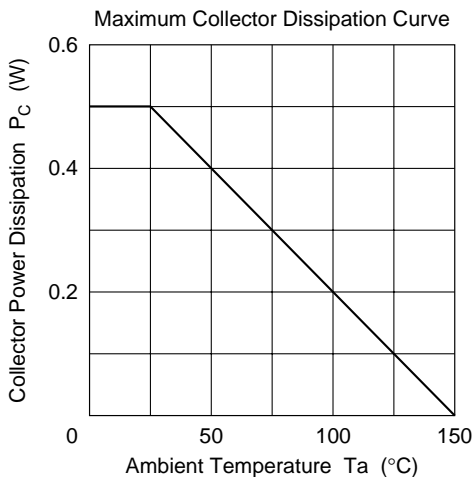
Item	Symbol	Ratings	Unit
Collector to base voltage	$V_{\text{CBO}}$	25	V
Collector to emitter voltage	$V_{\text{CEO}}$	20	V
Emitter to base voltage	$V_{\text{EBO}}$	5	V
Collector current	$I_{\text{C}}$	0.7	A
Collector peak current	$i_{\text{C(peak)}}$	1.0	A
Collector power dissipation	$P_{\text{C}}$	0.5	W
Junction temperature	$T_{\text{j}}$	150	$^\circ\text{C}$
Storage temperature	$T_{\text{stg}}$	-55 to +150	$^\circ\text{C}$

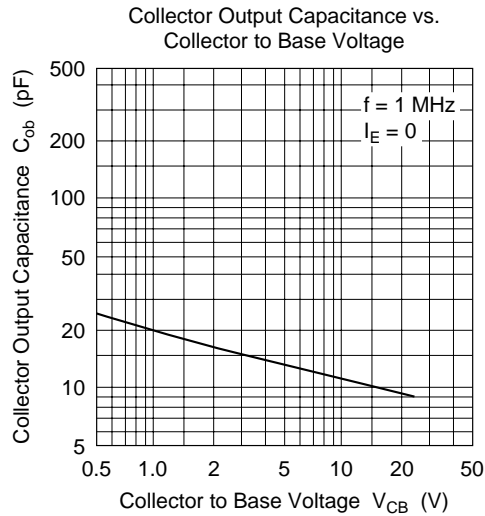
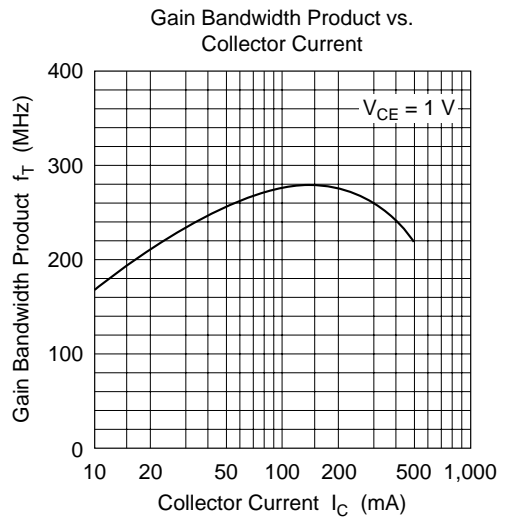
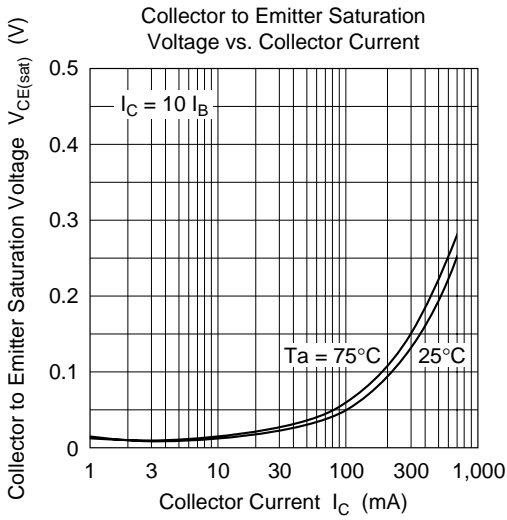
**Electrical Characteristics** ( $T_a = 25^\circ\text{C}$ )

Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to base breakdown voltage	$V_{(\text{BR})\text{CBO}}$	25	—	—	V	$I_{\text{C}} = 10 \mu\text{A}$ , $I_{\text{E}} = 0$
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	$I_{\text{E}} = 10 \mu\text{A}$ , $I_{\text{C}} = 0$
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		$V_{\text{CE}} = 1 \text{ V}$ , $I_{\text{C}} = 0.15 \text{ A}$ (Pulse test)
Collector to emitter saturation voltage	$V_{\text{CE(sat)}}$	—	0.19	0.5	V	$I_{\text{C}} = 0.5 \text{ A}$ , $I_{\text{B}} = 0.05 \text{ A}$ (Pulse test)
Base to emitter voltage	$V_{\text{BE}}$	—	0.76	1.0	V	$V_{\text{CE}} = 1 \text{ V}$ , $I_{\text{C}} = 0.15 \text{ A}$ (Pulse test)
Gain bandwidth product	$f_{\text{T}}$	—	280	—	MHz	$V_{\text{CE}} = 1 \text{ V}$ , $I_{\text{C}} = 0.15 \text{ A}$ (Pulse test)
Collector output capacitance	$C_{\text{ob}}$	—	12	—	pF	$V_{\text{CB}} = 10 \text{ V}$ , $I_{\text{E}} = 0$ , $f = 1 \text{ MHz}$

Note: 1. The 2SD467 is grouped by  $h_{\text{FE}}$  as follows.

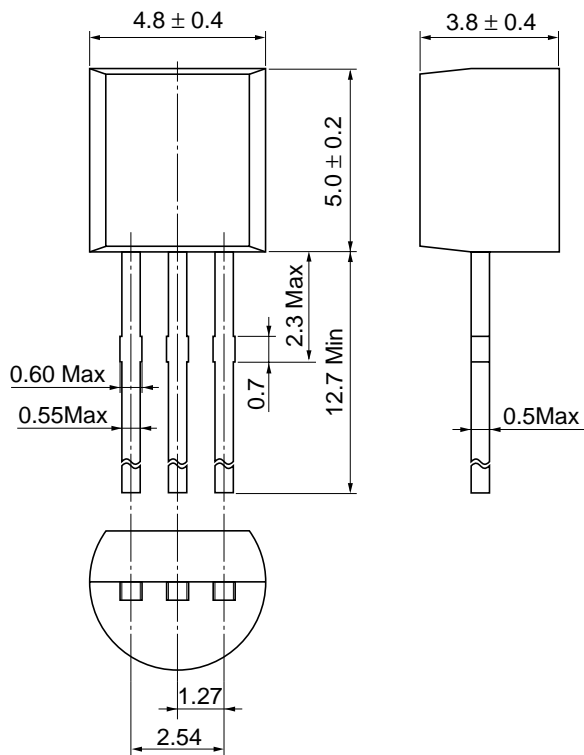
B	C
85 to 170	120 to 240





Package Dimensions

As of January, 2001  
Unit: mm



Hitachi Code	TO-92 (1)
JEDEC	Conforms
EIAJ	Conforms
Mass (reference value)	0.25 g

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