

2SC5862

Silicon NPN Epitaxial

HITACHI

ADE-208-1482 (Z)

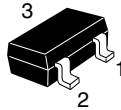
Rev.0
Feb. 2002

Features

- Low frequency amplifier

Outline

SMPAK



1. Emitter
2. Base
3. Collector

Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	50	V
Collector to emitter voltage	V_{CEO}	40	V
Emitter to base voltage	V_{EBO}	5	V
Collector current	I_C	100	mA
Emitter current	I_E	-100	mA
Collector power dissipation	P_C^*	130	mW
Junction temperature	Tj	150	°C
Storage temperature	Tstg	-55 to +150	°C

*Value on the glass epoxy board (10 mm x 10 mm x 0.7 mm)

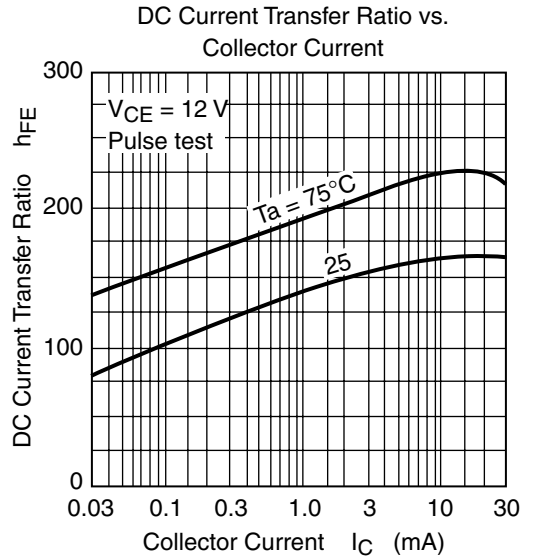
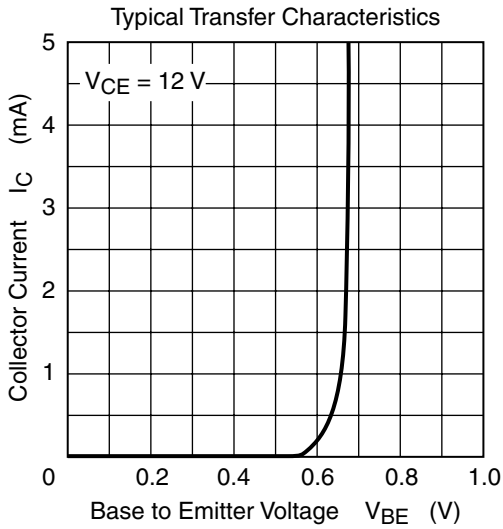
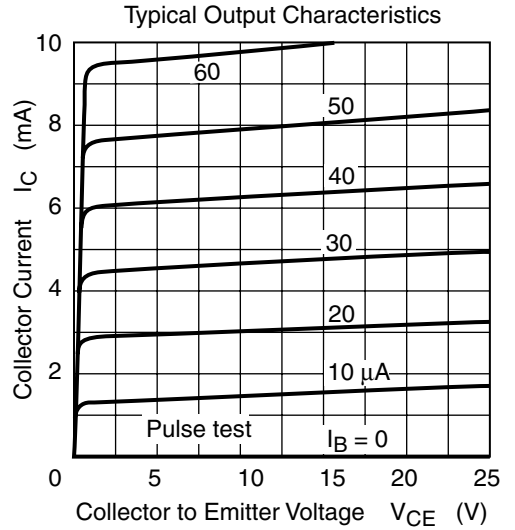
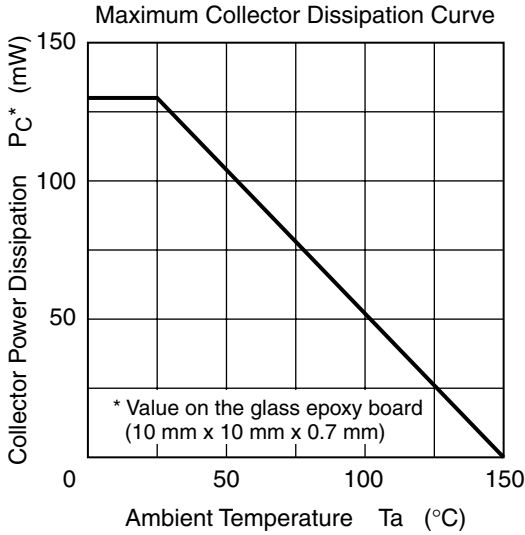
Electrical Characteristics

(Ta = 25°C)

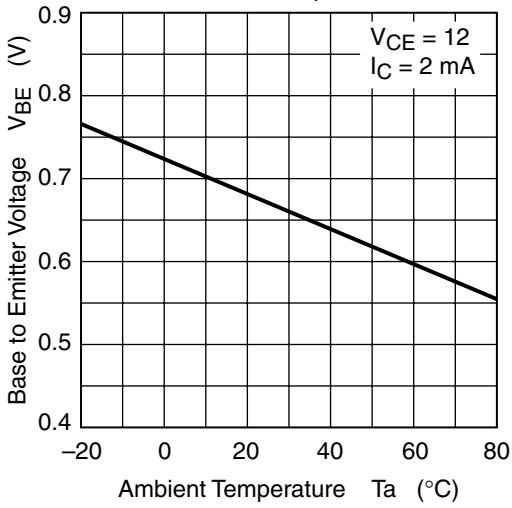
Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to base breakdown voltage	$V_{(BR)CBO}$	50	—	—	V	$I_C = 10 \mu A, I_E = 0$
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	40	—	—	V	$I_C = 1 \text{ mA}, R_{BE} = \infty$
Emitter to base breakdown voltage	$V_{(BR)EBO}$	5	—	—	V	$I_E = 10 \mu A, I_C = 0$
Collector cutoff current	I_{CBO}	—	—	0.5	μA	$V_{CB} = 30 \text{ V}, I_E = 0$
Emitter cutoff current	I_{EBO}	—	—	0.5	μA	$V_{EB} = 2 \text{ V}, I_C = 0$
DC current transfer ratio	h_{FE}^{*1}	100	—	500	—	$V_{CE} = 12 \text{ V}, I_C = 2 \text{ mA}$
Collector to emitter saturation voltage	$V_{CE(sat)}$	—	—	0.2	V	$I_C = 10 \text{ mA}, I_B = 1 \text{ mA}$
Base to emitter voltage	V_{BE}	—	—	0.75	V	$V_{CE} = 12 \text{ V}, I_C = 2 \text{ mA}$

Notes: 1. The 2SC5862 is grouped by h_{FE} as follows.

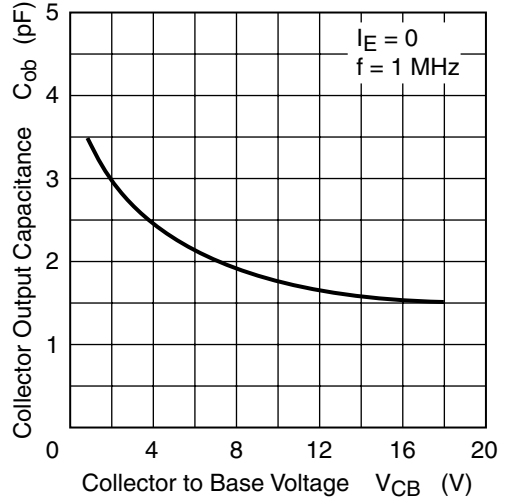
Grade	B	C	D
Mark	LB	LC	LD
h_{FE}	100 to 200	160 to 320	250 to 500



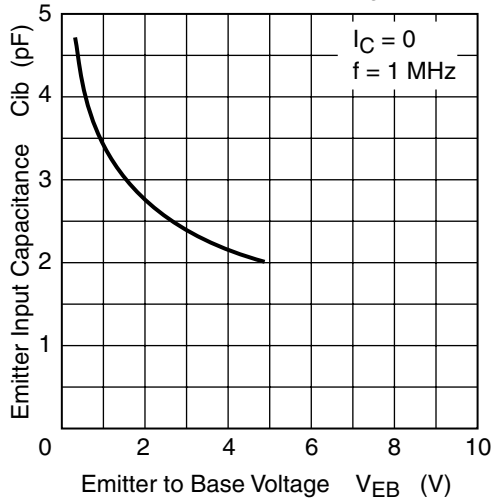
Base to Emitter Voltage vs.
Ambient Temperature



Collector Output Capacitance vs.
Collector to Base Voltage



Emitter Input Capacitance vs.
Emitter to Base Voltage



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