

2SC5852

Silicon NPN Epitaxial Planar

HITACHI

ADE-208-1481 (Z)

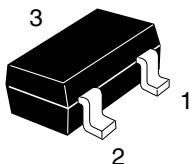
Rev.0
Feb. 2002

Features

- VHF amplifier, local oscillator

Outline

CMPAK



- 1. Emitter
- 2. Base
- 3. Collector

Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	30	V
Collector to emitter voltage	V_{CEO}	20	V
Emitter to base voltage	V_{EBO}	4	V
Collector current	I_C	20	mA
Collector power dissipation	P_C^*	150	mW
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	-55 to +150	°C

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

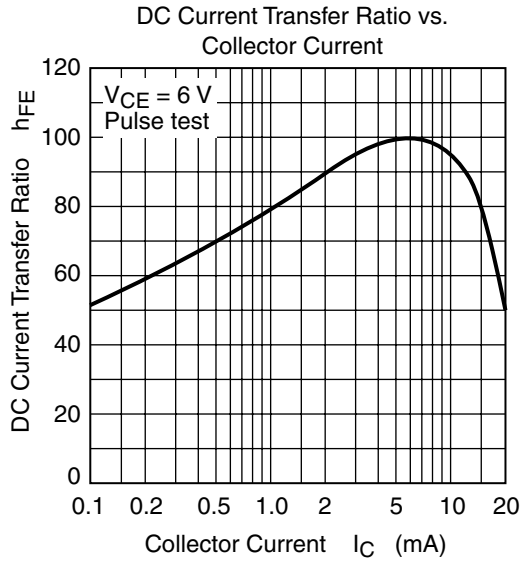
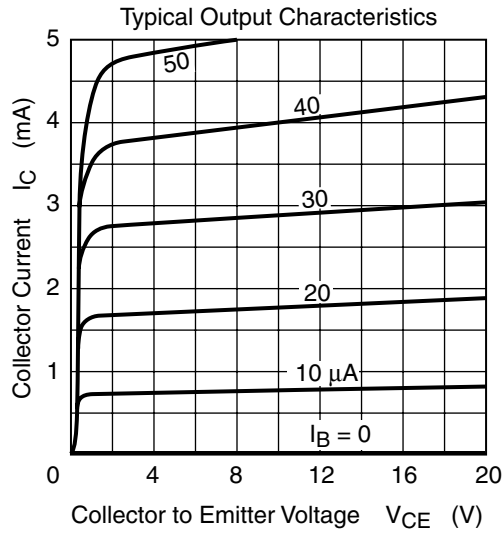
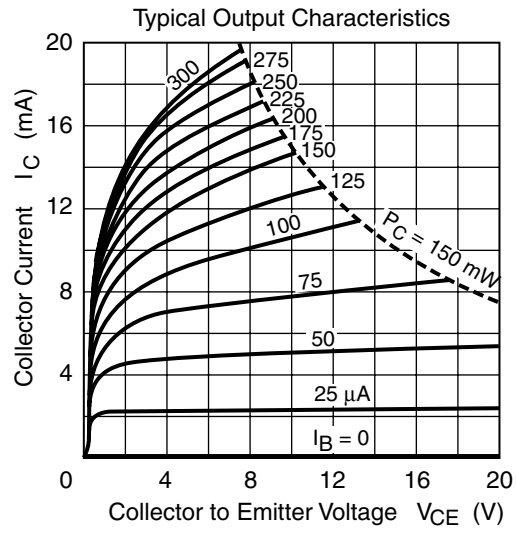
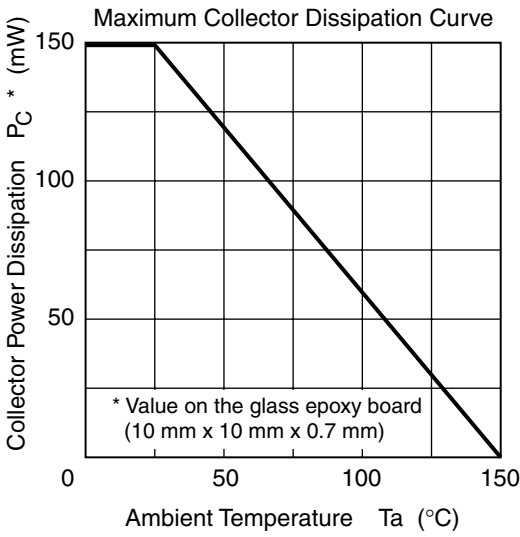
Electrical Characteristics

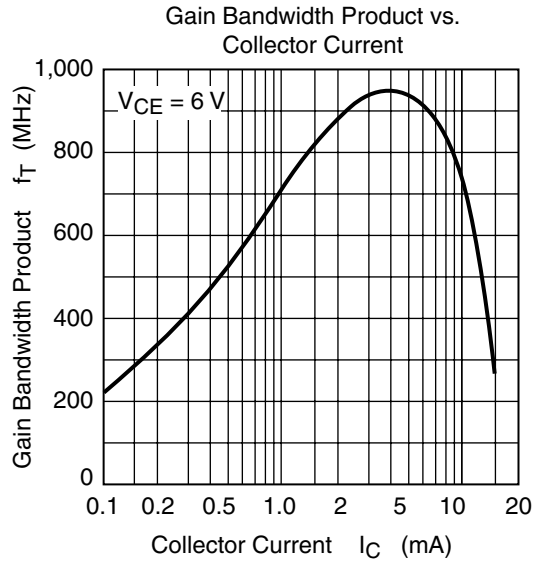
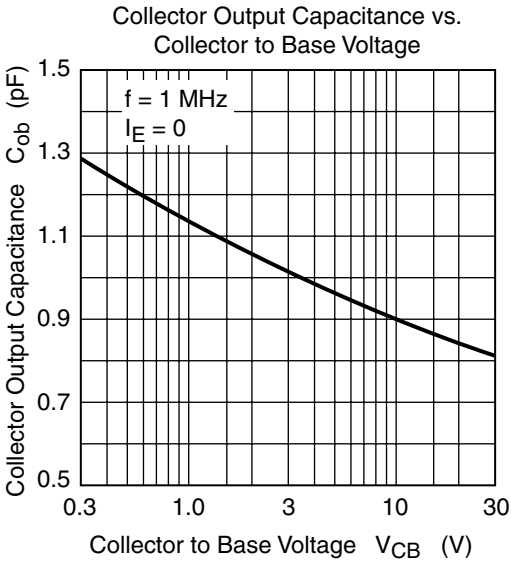
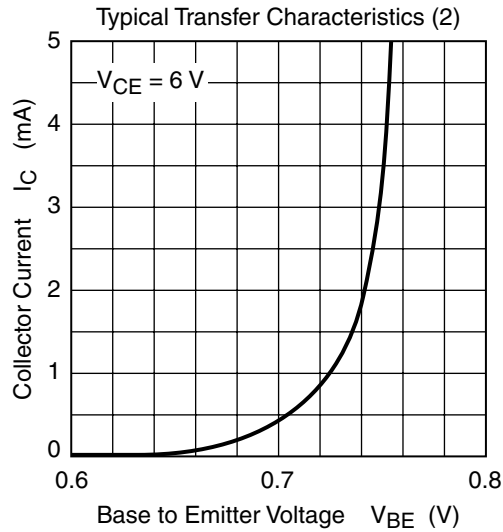
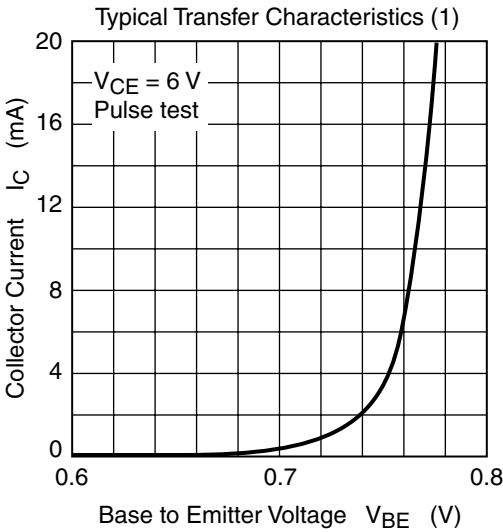
(Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to base breakdown voltage	$V_{(BR)CBO}$	30	—	—	V	$I_C = 10\text{ }\mu\text{A}$, $I_E = 0$
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	20	—	—	V	$I_C = 1\text{ mA}$, $R_{BE} = \infty$
Emitter to base breakdown voltage	$V_{(BR)EBO}$	4	—	—	V	$I_E = 10\text{ }\mu\text{A}$, $I_C = 0$
Collector cutoff current	I_{CEO}	—	—	0.5	μA	$V_{CE} = 10\text{ V}$, $R_{BE} = \infty$
Emitter cutoff current	I_{EBO}	—	—	0.5	μA	$V_{EB} = 2\text{ V}$, $I_C = 0$
DC current transfer ratio	h_{FE}^{*1}	60	—	200	—	$V_{CE} = 6\text{ V}$, $I_C = 1\text{ mA}$
Collector to emitter saturation voltage	$V_{CE(sat)}$	—	0.17	—	V	$I_C = 20\text{ mA}$, $I_B = 4\text{ mA}$
Base to emitter voltage	V_{BE}	—	0.72	—	V	$V_{CE} = 6\text{ V}$, $I_C = 1\text{ mA}$
Gain bandwidth product	f_T	—	940	—	MHz	$V_{CE} = 6\text{ V}$, $I_C = 5\text{ mA}$
Collector output capacitance	C_{ob}	—	0.9	—	pF	$V_{CB} = 10\text{ V}$, $I_E = 0$, $f = 1\text{ MHz}$

Notes: 1. The 2SC5852 is grouped by h_{FE} as follows.

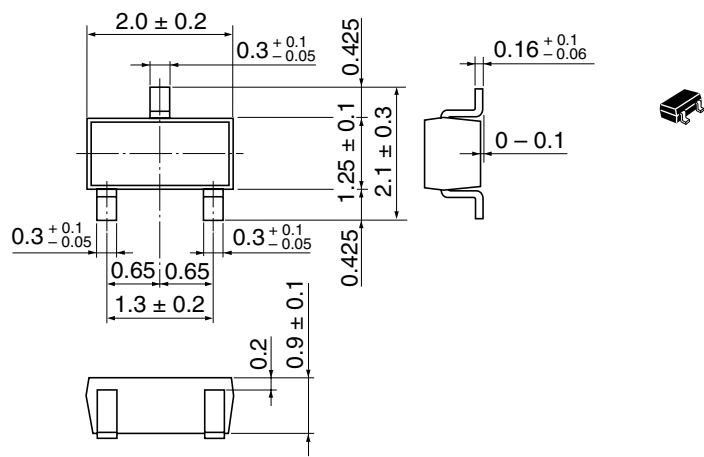
Grade	B	C
Mark	QB	QC
h_{FE}	60 to 120	100 to 200





Package Dimensions

As of July, 2001
Unit: mm



Hitachi Code	CMPAK
JEDEC	—
JEITA	Conforms
Mass (reference value)	0.006 g

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