

HIT1577

Silicon PNP Epitaxial

R07DS0485EJ0100

Rev.1.00

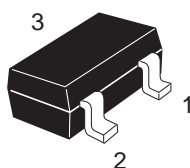
Jun 22, 2011

Features

- Low frequency power amplifier

Outline

RENESAS Package code: PTSP0003ZA-A
(Package name: CMPAK)



1. Emitter
2. Base
3. Collector

Note: Marking is "TQ-".

Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Ratings	Unit
Collector to base voltage	V_{CBO}	-50	V
Collector to emitter voltage	V_{CEO}	-50	V
Emitter to base voltage	V_{EBO}	-5	V
Collector current	I_C	-0.5	A
Collector power dissipation	P_C	0.1	W
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	-55 to +150	°C

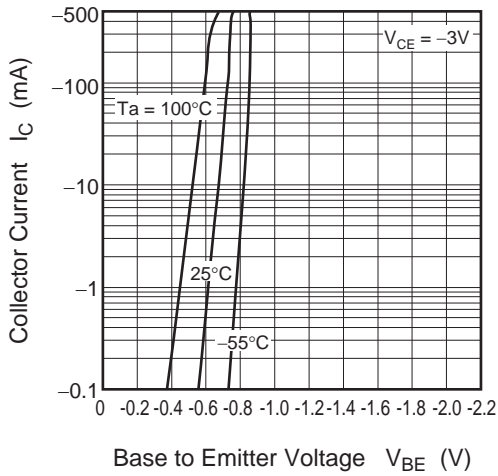
Electrical Characteristics

(Ta = 25°C)

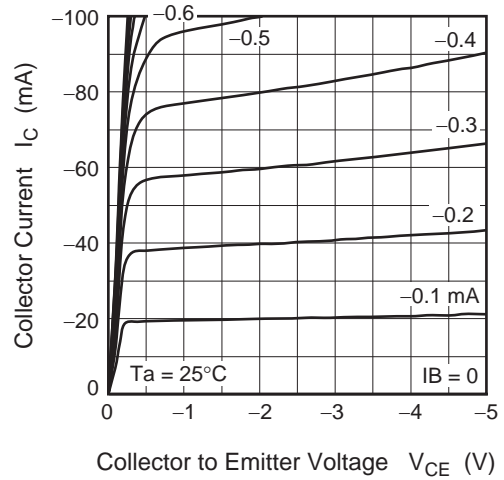
Item	Symbol	Min.	Typ	Max.	Unit	Test Conditions
Collector to base breakdown voltage	$V_{(BR)CBO}$	-50	—	—	V	$I_C = -10 \mu A, I_E = 0$
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	-50	—	—	V	$I_C = -1 \text{ mA}, R_{BE} = \infty$
Emitter to base breakdown voltage	$V_{(BR)EBO}$	-5	—	—	V	$I_E = -10 \mu A, I_C = 0$
Collector cutoff current	I_{CBO}	—	—	-500	nA	$V_{CB} = -20 \text{ V}, I_E = 0$
Emitter cutoff current	I_{EBO}	—	—	-500	nA	$V_{EB} = -4 \text{ V}, I_C = 0$
DC current transfer ratio	h_{FE1}	120	—	270	—	$V_{CE} = -3 \text{ V}, I_C = -10 \text{ mA}$
Collector to emitter saturation voltage	$V_{CE(sat)}$	—	—	-0.6	V	$I_C = -150 \text{ mA}, I_B = -15 \text{ mA}$
Transition frequency	f_T	—	180	—	MHz	$V_{CE} = -5 \text{ V}, I_C = -20 \text{ mA}, f = 100 \text{ MHz}$
Output capacitance	C_{ob}	—	4.55	—	pF	$V_{CB} = -10 \text{ V}, I_E = 0 \text{ A}, f = 1 \text{ MHz}$

Main Characteristics

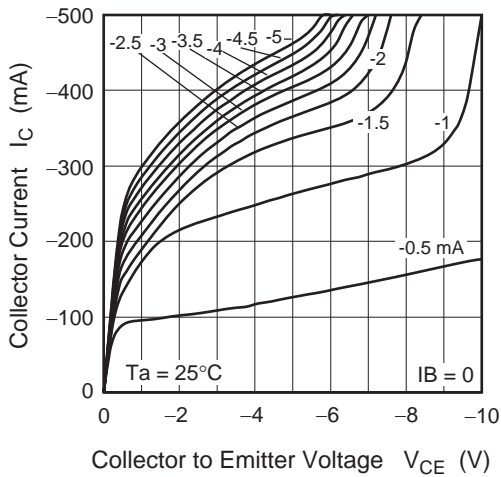
Typical Transfer Characteristic



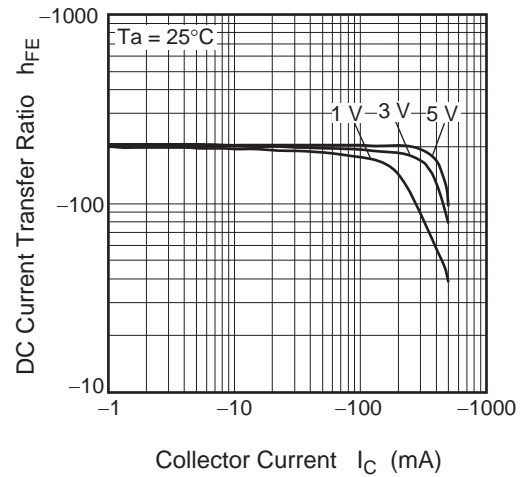
Typical Output Characteristics (1)



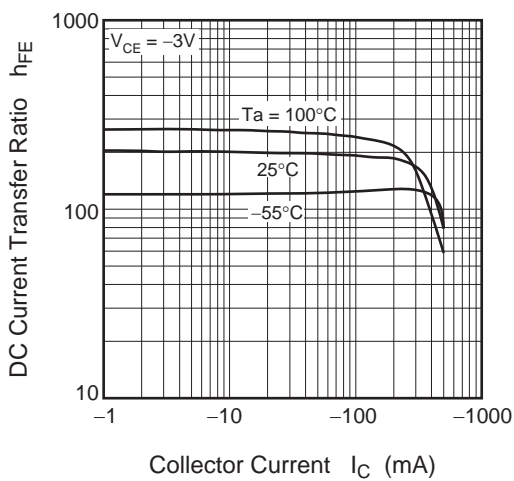
Typical Output Characteristics (2)



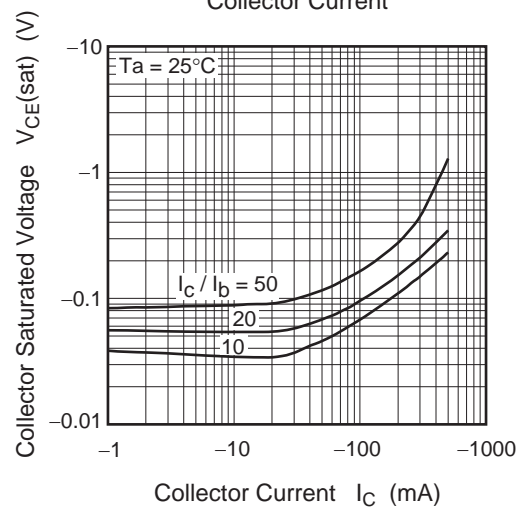
DC Current Transfer Ratio vs. Collector Current

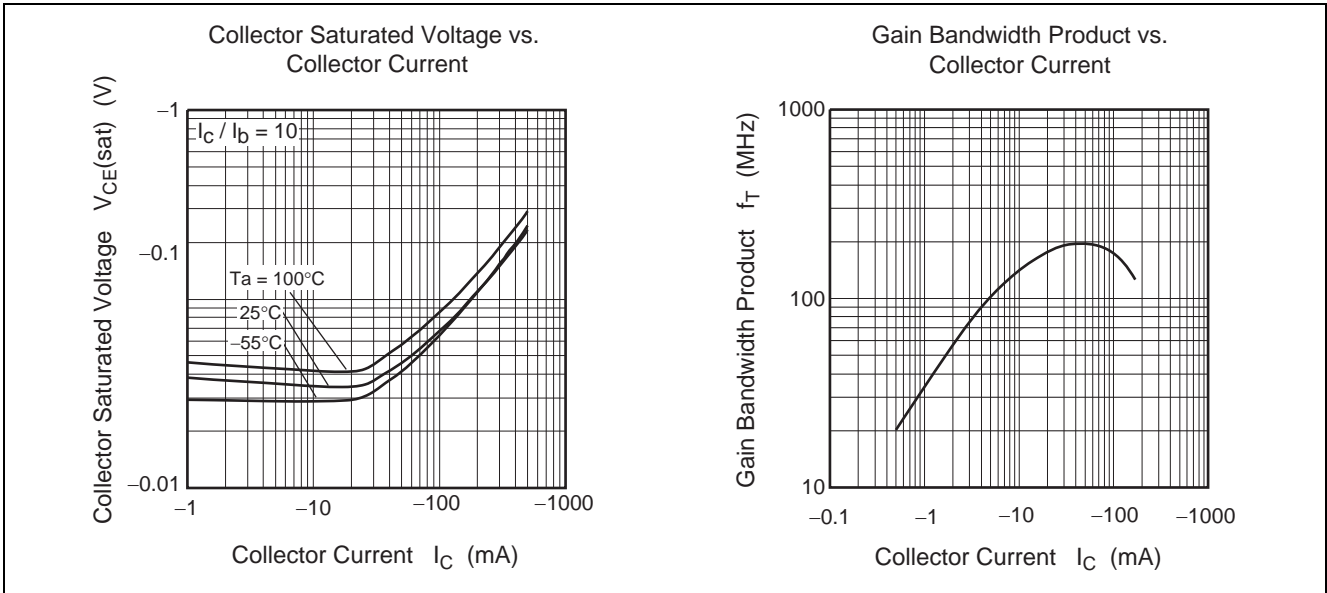


DC Current Transfer Ratio vs. Collector Current



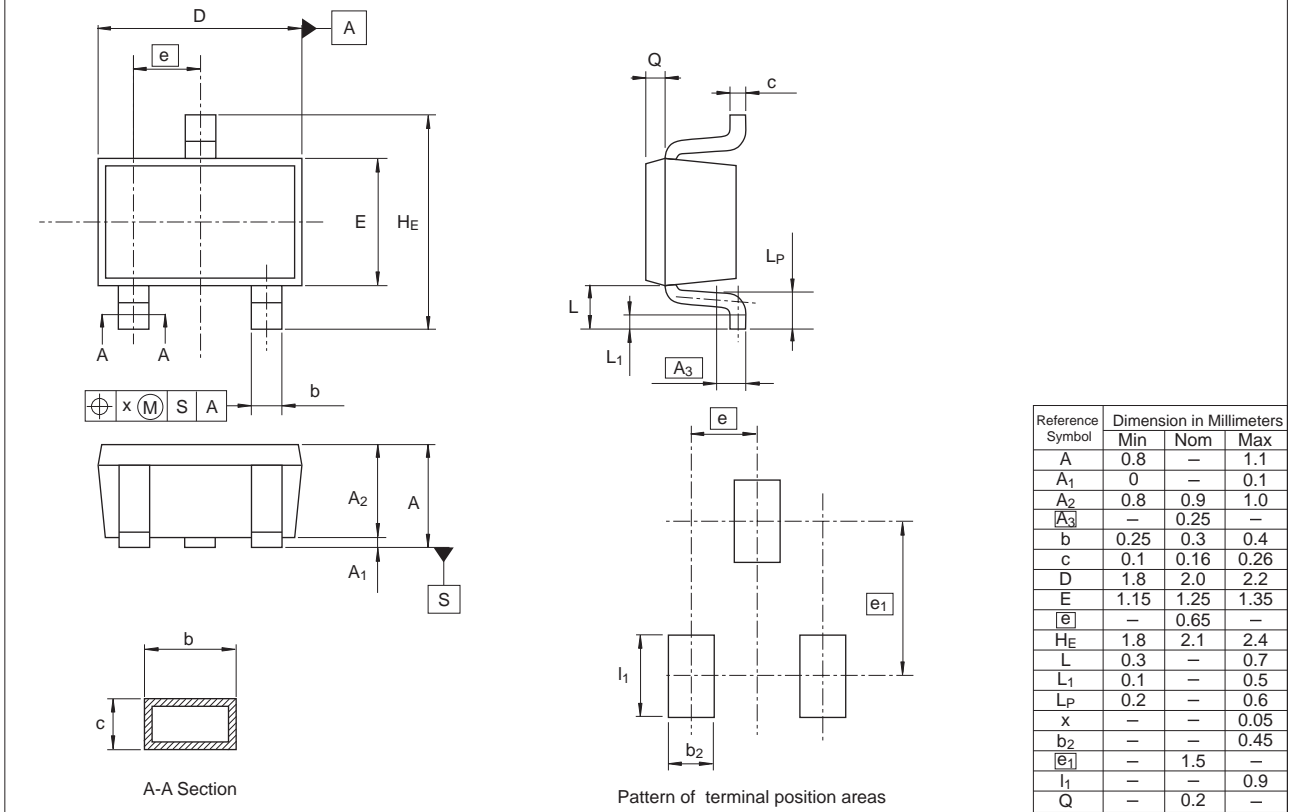
Collector Saturated Voltage vs. Collector Current





Package Dimensions

Package Name CMPAK	JEITA Package Code SC-70	RENESAS Code PTSP0003ZA-A	Previous Code CMPAK / CMPAKV	MASS[Typ.] 0.006g
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Ordering Information

Orderable Part Number	Quantity	Shipping Container
HIT1577TQ-TR-HQ	3000 pcs.	φ178 mm Reel, 8 mm Emboss Taping

Note: This product is designed for consumer use and not for automotive or industrial use.

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