

2SC4265

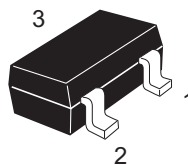
Silicon NPN Epitaxial

REJ03G0722-0300
(Previous ADE-208-1102A)
Rev.3.00
Aug.10.2005

Application

VHF RF amplifier, Local oscillator, Mixer

Outline

RENESAS Package code: PTSP0003ZA-A
(Package name: CMPAK[®])

1. Emitter
2. Base
3. Collector

Note: Marking is "JC".

*CMPAK is a trademark of Renesas Technology Corp.

Absolute Maximum Ratings

(Ta = 25°C)

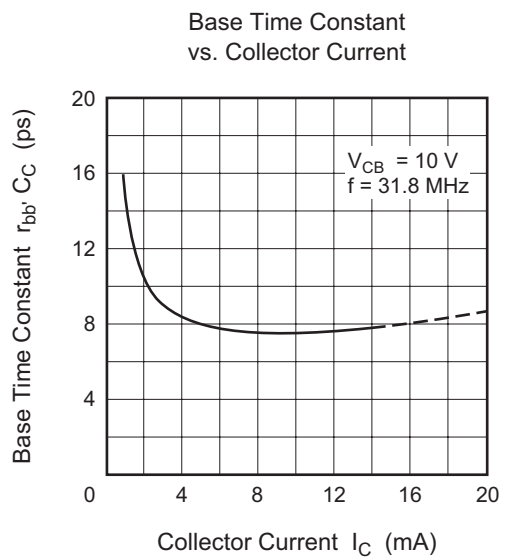
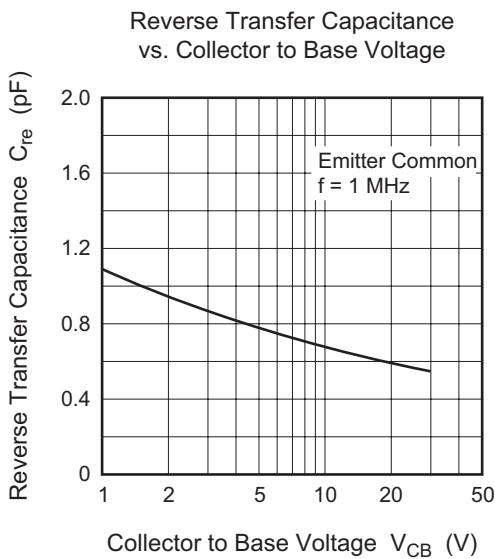
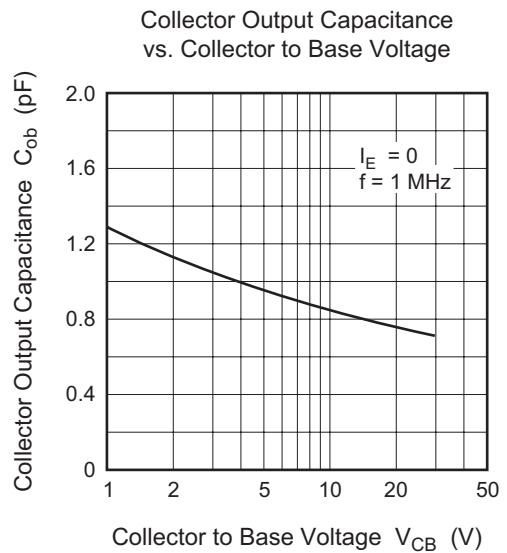
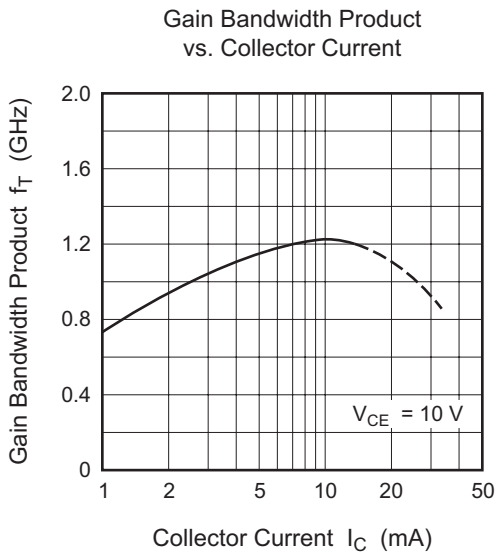
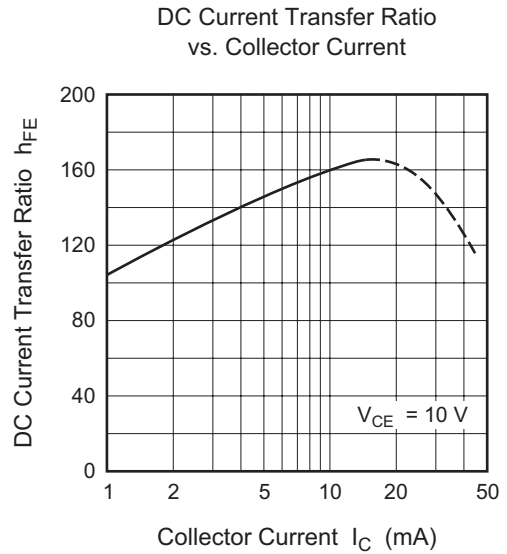
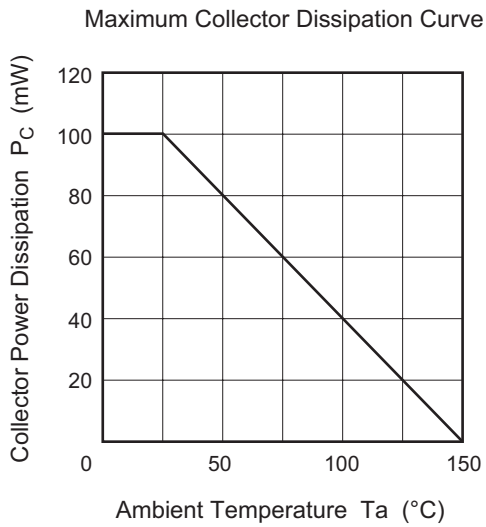
Item	Symbol	Ratings	Unit
Collector to base voltage	V _{CBO}	30	V
Collector to emitter voltage	V _{CEO}	20	V
Emitter to base voltage	V _{EBO}	3	V
Collector current	I _C	50	mA
Collector power dissipation	P _C	100	mW
Junction temperature	T _J	150	°C
Storage temperature	T _{stg}	-55 to +150	°C

Electrical Characteristics

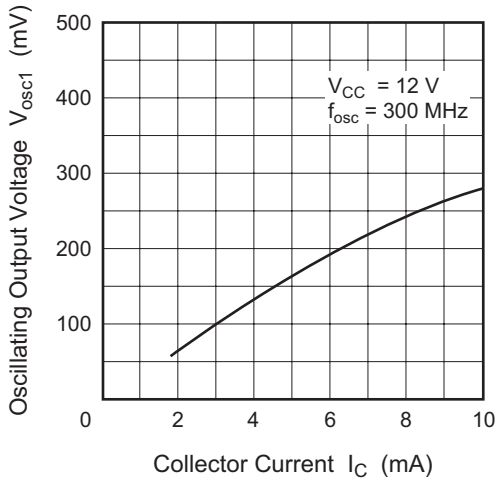
(Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to base breakdown voltage	$V_{(BR)CBO}$	30	—	—	V	$I_C = 10 \mu A, I_E = 0$
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	20	—	—	V	$I_C = 1 \text{ mA}, R_{BE} = \infty$
Collector cutoff current	I_{CBO}	—	—	0.5	μA	$V_{CE} = 15 \text{ V}, I_E = 0$
Emitter cutoff current	I_{EBO}	—	—	10	μA	$V_{EB} = 3 \text{ V}, I_C = 0$
Collector to emitter saturation voltage	$V_{CE(sat)}$	—	—	1.0	V	$I_C = 20 \text{ mA}, I_B = 4 \text{ mA}$
DC current transfer ratio	h_{FE}	40	—	—		$V_{CE} = 10 \text{ V}, I_C = 10 \text{ mA}$
Collector output capacitance	C_{ob}	—	—	1.5	pF	$V_{CB} = 10 \text{ V}, I_E = 0, f = 1 \text{ MHz}$
Gain bandwidth product	f_T	600	—	—	MHz	$V_{CE} = 10 \text{ V}, I_C = 10 \text{ mA}$

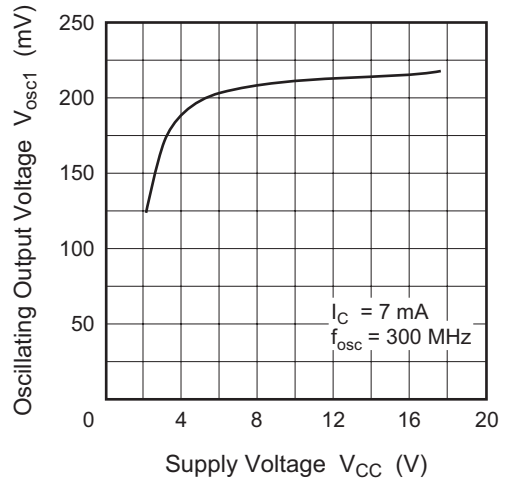
Main Characteristics



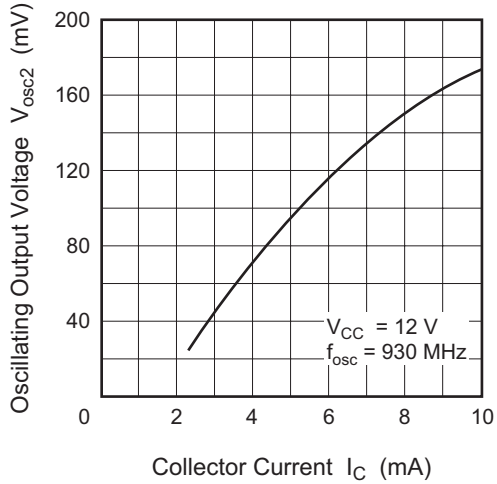
Oscillating Output Voltage vs. Collector Current



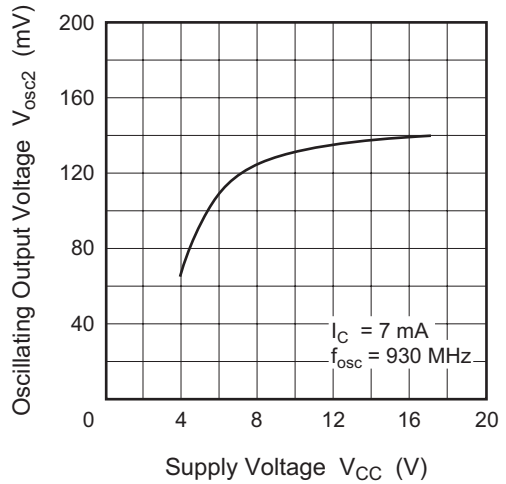
Oscillating Output Voltage vs. Supply Voltage



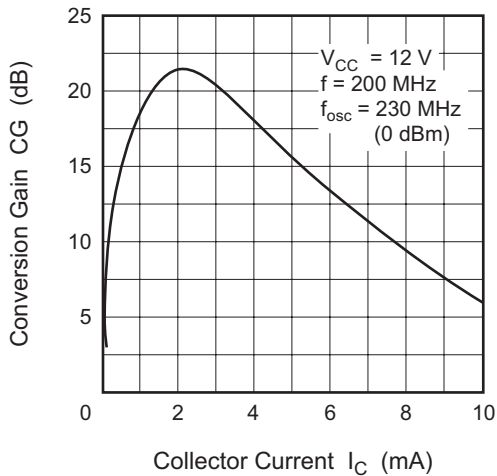
Oscillating Output Voltage vs. Collector Current



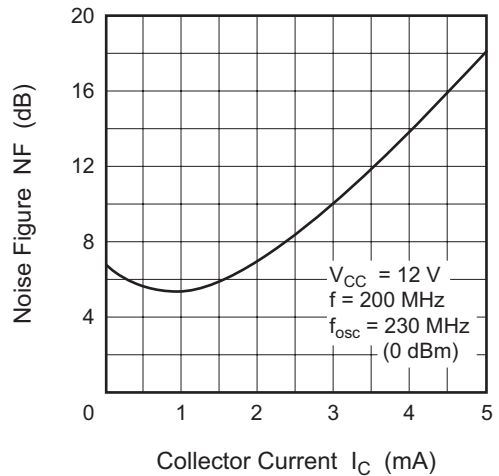
Oscillating Output Voltage vs. Supply Voltage



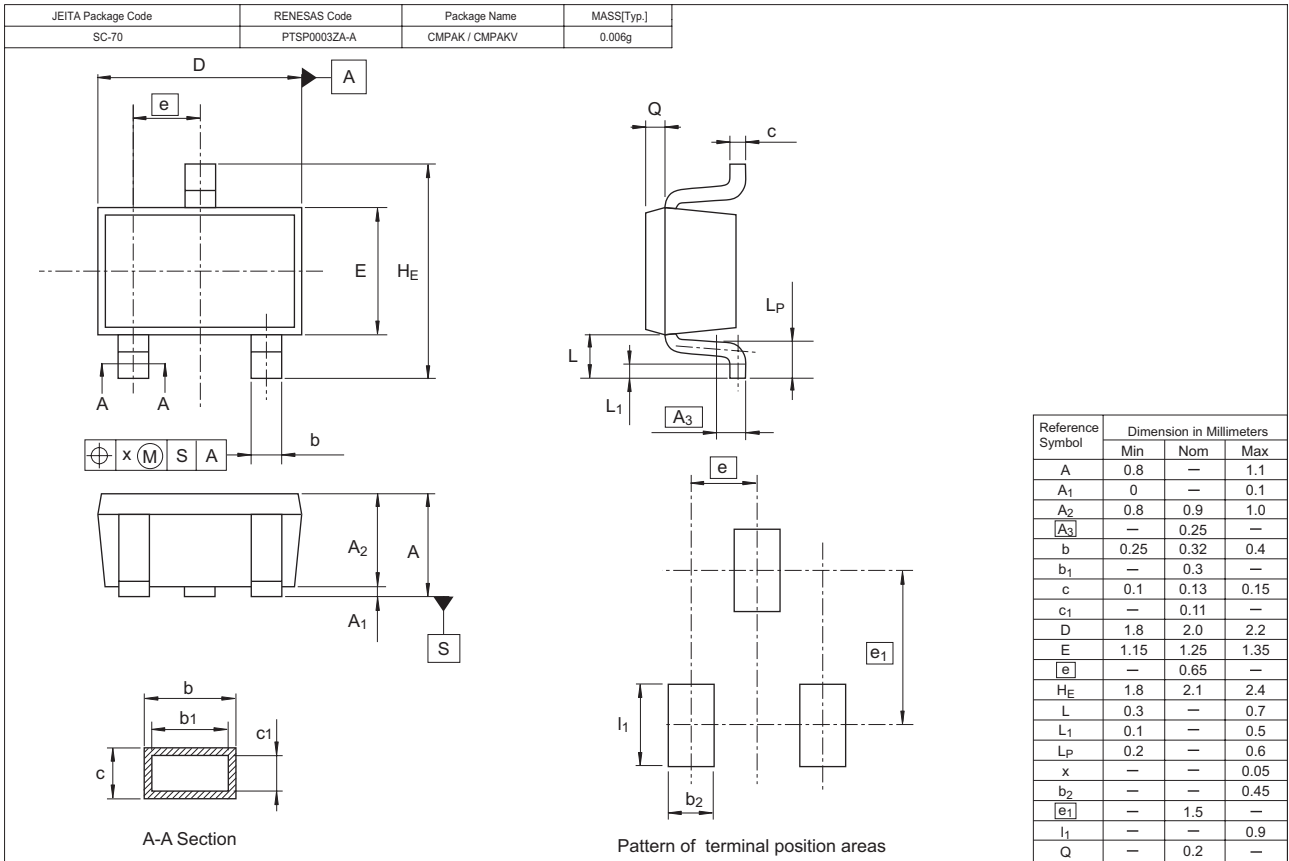
Conversion Gain vs. Collector Current



Noise Figure vs. Collector Current



Package Dimensions



Ordering Information

Part Name	Quantity	Shipping Container
2SC4265JCTL-E	3000	φ 178 mm Reel, 8 mm Emboss Taping

Note: For some grades, production may be terminated. Please contact the Renesas sales office to check the state of production before ordering the product.

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