2SC4308

Silicon NPN Epitaxial Planar

REJ03G0723-0200
(Previous ADE-208-1103)
Rev.2.00
Aug.10.2005

Application

VHF Wide band amplifier

Outline

RENESAS Package code: PRSS0003DA-C
(Package name: TO-92 (2))

1. Base
2. Emitter
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}	3	V
Collector current	I_C	300	mA
Collector peak current	$i_{C\ (peak)}$	500	mA
Collector power dissipation	P_C	600	mW
Junction temperature	Tj	150	°C
Storage temperature	Tstg	–55 to +150	°C

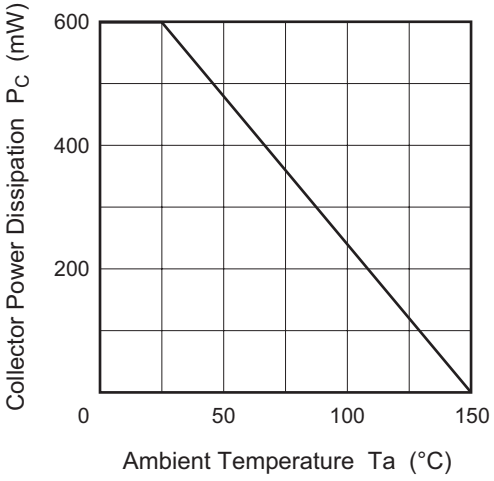
Electrical Characteristics

(Ta = 25°C)

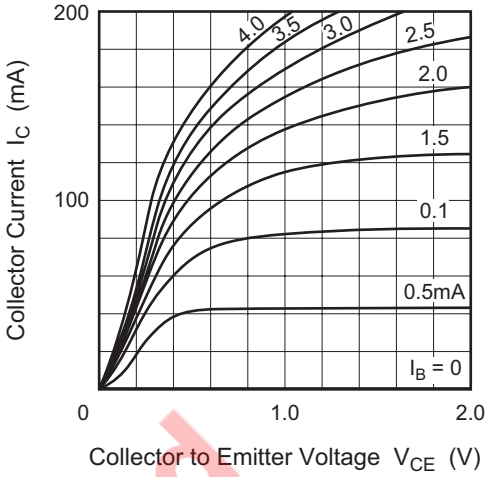
Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to base breakdown voltage	$V_{(BR)CBO}$	30	—	—	V	I_C = 100 µA, I_E = 0
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	20	—	—	V	I_C = 1 mA, R_{BE} = ∞
Collector cutoff current	I_{CBO}	—	—	1	µA	V_{CB} = 25 V, I_E = 0
Emitter cutoff current	I_{EBO}	—	—	10	µA	V_{EB} = 3 V, I_E = 0
DC current transfer ratio	h_{FE}	50	—	200		V_{CE} = 5 V, I_C = 50 mA
Gain bandwidth product	f_T	1.5	2.5	—	GHz	V_{CE} = 5 V, I_C = 50 mA
Collector output capacitance	Cob	—	4.0	—	pF	V_{CB} = 10 V, I_E = 0, f = 1 MHz

Main Characteristics

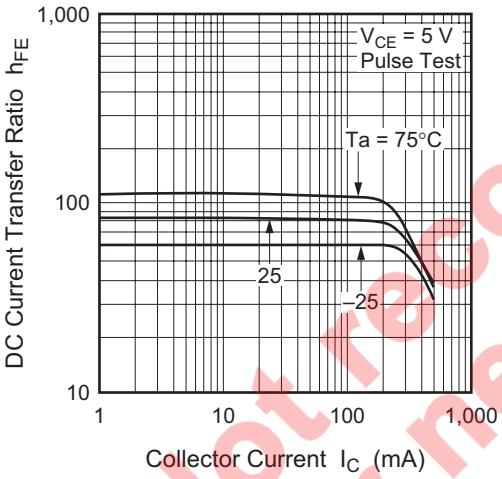
Maximum Collector Dissipation Curve



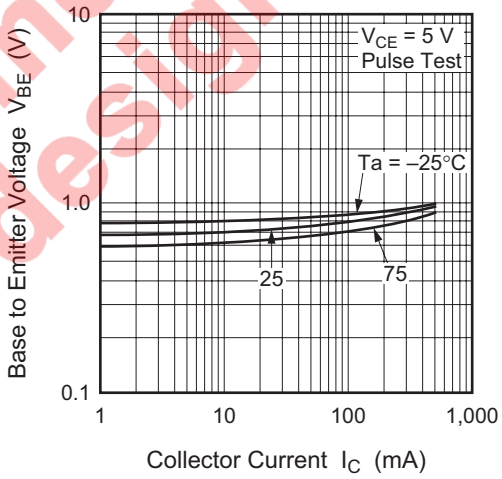
Typical Output Characteristics



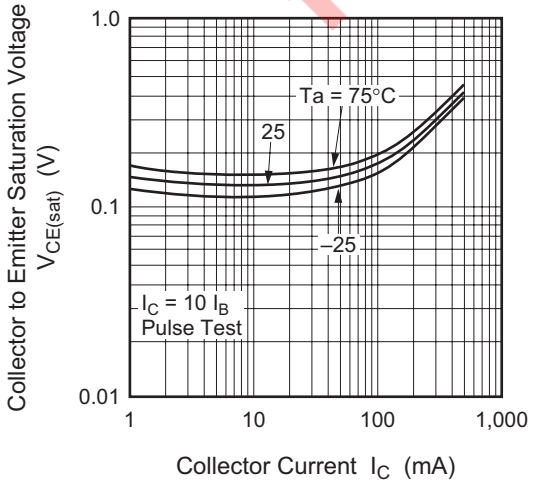
DC Current Transfer Ratio vs. Collector Current



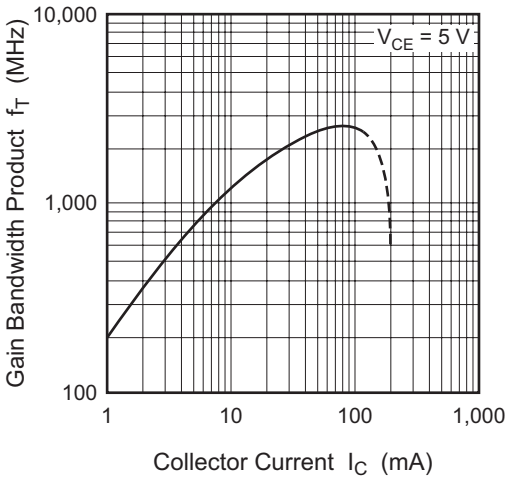
Base to Emitter Voltage vs. Collector Current



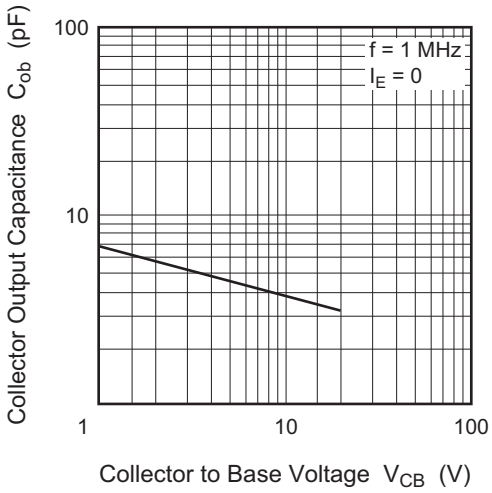
Collector to Emitter Saturation Voltage vs. Collector Current



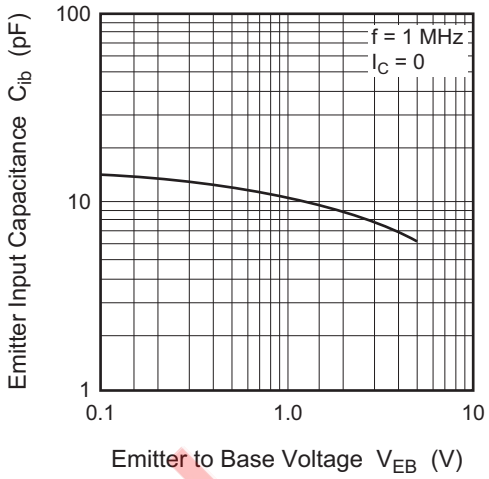
Gain Bandwidth Product vs. Collector Current



Collector Output Capacitance vs. Collector Current



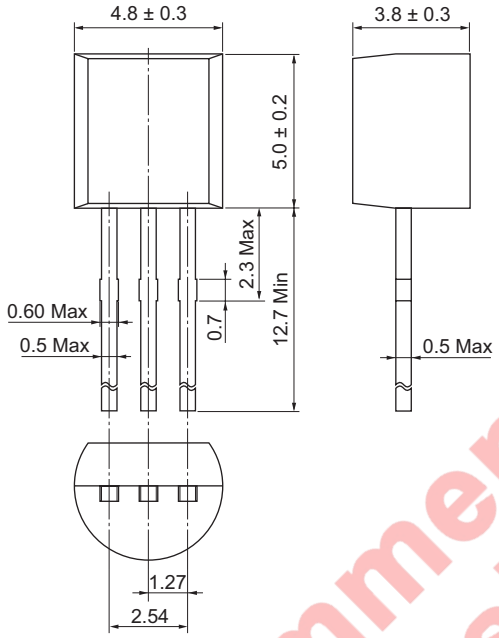
Emitter Input Capacitnce vs. Emitter to Base Votlage



Package Dimensions

JEITA Package Code	RENESAS Code	Package Name	MASS[Typ.]
SC-43A	PRSS0003DA-C	TO-92(2) / TO-92(2)V	0.25g

Unit: mm



Ordering Information

Part Name	Quantity	Shipping Container
2SC4308TZ-E	2500	Hold Box, Radial 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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