



# 2SA893A

Silicon PNP Epitaxial

REJ03G0632-0200  
(Previous ADE-208-1002)  
Rev.2.00  
Aug.10.2005

## Application

- Low frequency high voltage amplifier
- Complementary pair with 2SC1890A

## Outline

RENESAS Package code: PRSS0003DA-A  
(Package name: TO-92 (1))



1. Emitter
2. Collector
3. Base

## Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Ratings	Unit
Collector to base voltage	$V_{CBO}$	-120	V
Collector to emitter voltage	$V_{CEO}$	-120	V
Emitter to base voltage	$V_{EBO}$	-5	V
Collector current	$I_C$	-50	mA
Collector power dissipation	$P_C$	300	mW
Junction temperature	$T_j$	150	°C
Storage temperature	$T_{stg}$	-55 to +150	°C



## Electrical Characteristics

(Ta = 25°C)

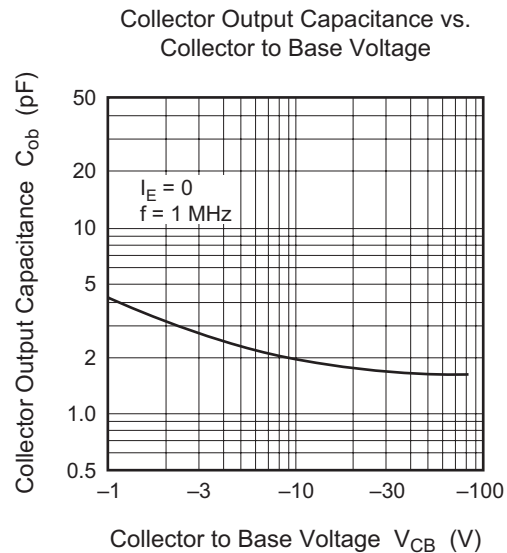
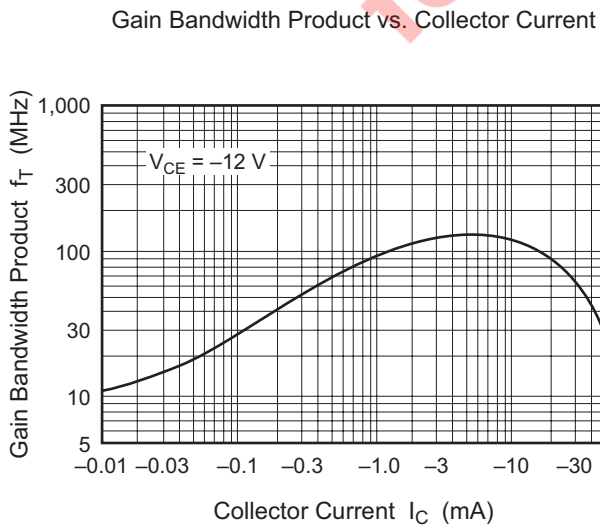
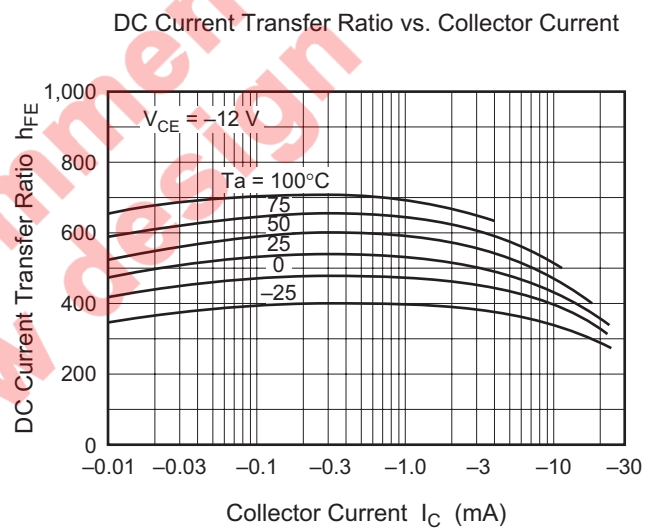
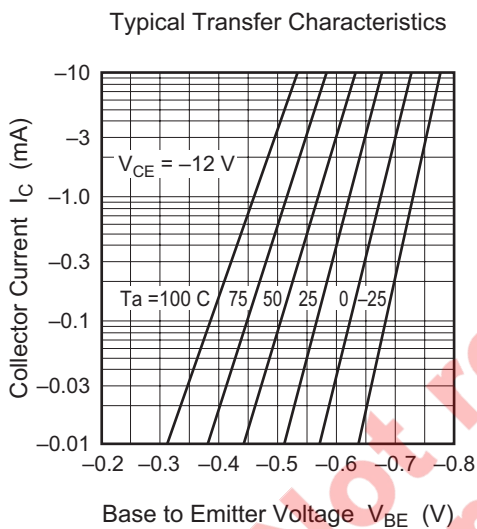
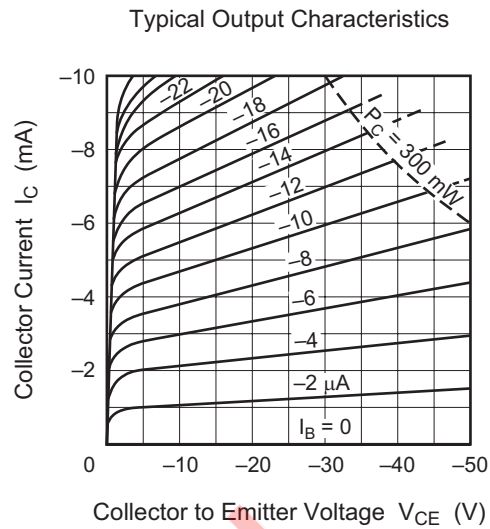
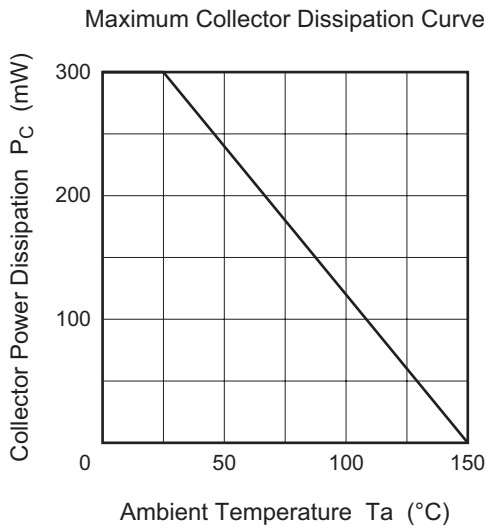
Item	Symbol	Min	Typ	Max	Unit	Test conditions
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	-120	—	—	V	$I_C = -1 \text{ mA}$ , $R_{BE} = \infty$
Collector cutoff current	$I_{CBO}$	—	—	—	$\mu\text{A}$	$V_{CB} = -75 \text{ V}$ , $I_E = 0$
		—	—	-0.5	$\mu\text{A}$	$V_{CB} = -100 \text{ V}$ , $I_E = 0$
DC current transfer ratio	$h_{FE}^{*1}$	250	—	800		$V_{CE} = -12 \text{ V}$ , $I_C = -2 \text{ mA}$
Base to emitter voltage	$V_{BE}$	—	—	-0.75	V	$V_{CE} = -12 \text{ V}$ , $I_C = -2 \text{ mA}$
Collector to emitter saturation voltage	$V_{CE(sat)}$	—	—	-0.5	V	$I_C = -10 \text{ mA}$ , $I_B = -1 \text{ mA}$
Gain bandwidth product	$f_T$	—	120	—	MHz	$V_{CE} = -12 \text{ V}$ , $I_C = -2 \text{ mA}$
Collector output capacitance	$C_{ob}$	—	1.8	—	pF	$V_{CB} = -25 \text{ V}$ , $I_E = 0$ , $f = 1 \text{ MHz}$
Noise figure	NF	—	2	10	dB	$V_{CE} = -6 \text{ V}$ , $I_C = -50 \mu\text{A}$ , $R_g = 50 \text{ k}\Omega$ , $f = 1 \text{ kHz}$

Note: 1. The 2SA893A is grouped by  $h_{FE}$  as follows.

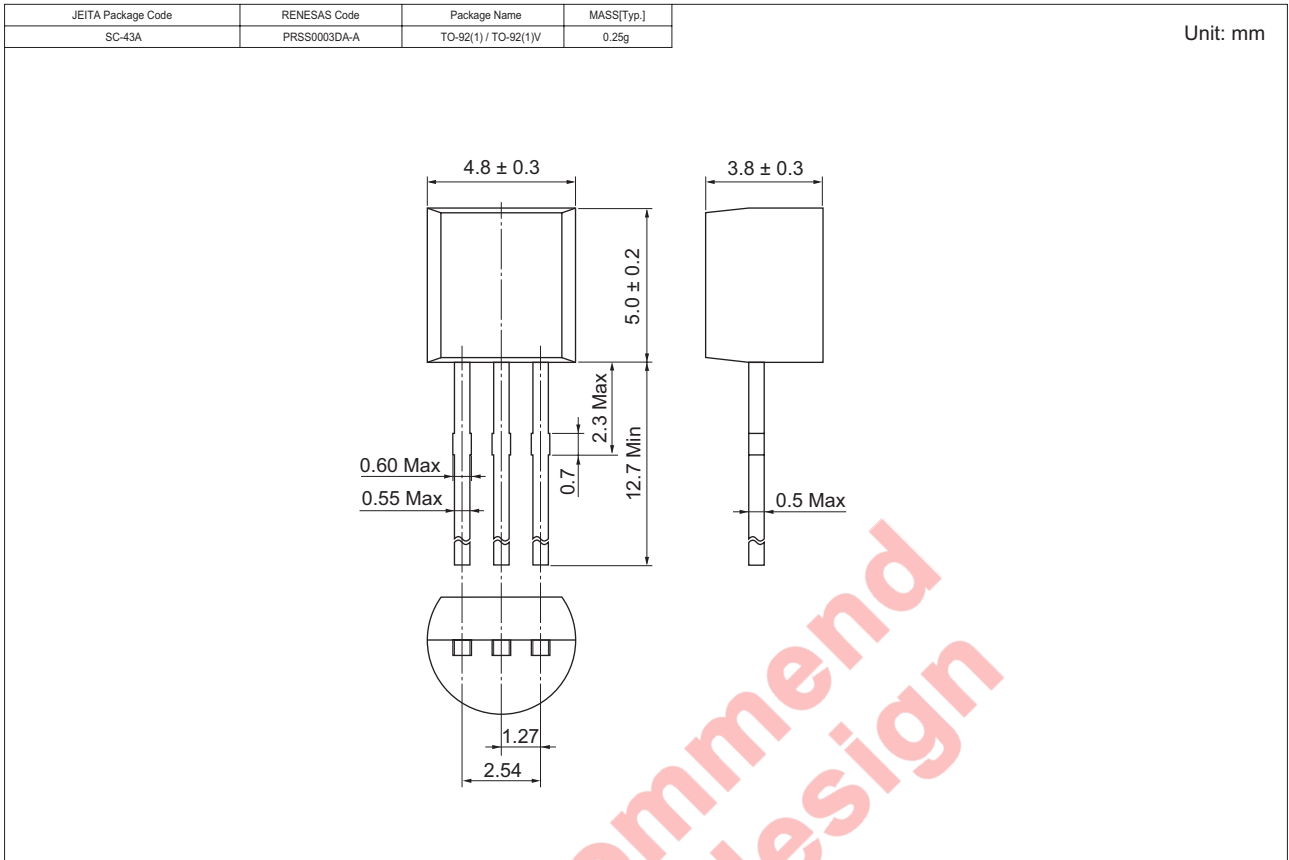
D	E
250 to 500	400 to 800

Not recommended  
for new design

Main Characteristics



Package Dimensions



Ordering Information

Part Name	Quantity	Shipping Container
2SA893ADTZ	2500	Hold Box, Radial Taping
2SA893AETZ		

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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