

# 2SA1084, 2SA1085

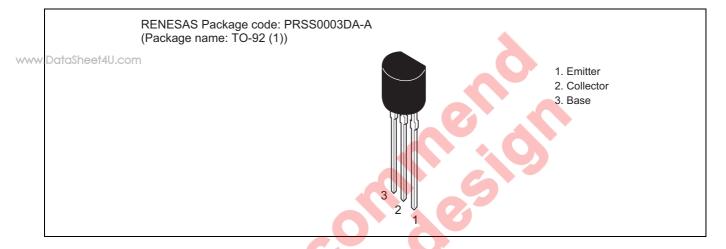
## Silicon PNP Epitaxial

REJ03G0635-0300 (Previous ADE-208-1007A) Rev.3.00 Aug.10.2005

#### **Application**

Low frequency low noise amplifier

#### **Outline**



### **Absolute Maximum Ratings**

 $(Ta = 25^{\circ}C)$ 

Item	Symbol	2SA1084	2SA1085	Unit
Collector to base voltage	V <sub>CBO</sub>	<b>–</b> 90	-120	V
Collector to emitter voltage	$V_{CEO}$	-90	-120	V
Emitter to base voltage	V <sub>EBO</sub>	<b>-</b> 5	<b>-</b> 5	V
Collector current	Ic	-100	-100	mA
Emitter current	Ι <sub>Ε</sub>	100	100	mA
Collector power dissipation	Pc	400	400	mW
Junction temperature	Tj	150	150	°C
Storage temperature	Tstg	-55 to +150	-55 to +150	°C

#### **Electrical Characteristics**

 $(Ta = 25^{\circ}C)$ 

			2SA1084	ļ.		2SA1085	5		
Item	Symbol	Min	Тур	Max	Min	Тур	Max	Unit	Test conditions
Collector to base	V <sub>(BR)CBO</sub>	-90	_	_	-120	_	_	V	$I_C = -10 \mu\text{A}, \ I_E = 0$
breakdown voltage									
Collector to emitter	$V_{(BR)CEO}$	-90	_		-120	_	_	V	$I_C = -1 \text{ mA},$
breakdown voltage									R <sub>BE</sub> = ∞
Emitter to base	$V_{(BR)EBO}$	<b>-</b> 5	_		<b>-</b> 5	_	_	V	$I_E = -10 \ \mu A, \ I_C = 0$
breakdown voltage									
Collector cutoff current	I <sub>CBO</sub>	—		-0.1	—	—	-0.1	μΑ	$V_{CB} = -50 \text{ V}, I_E = 0$
Emitter cutoff current	I <sub>EBO</sub>	_	_	-0.1	_	_	-0.1	μΑ	$V_{EB} = -2 \text{ V}, I_{C} = 0$
DC current transfer ratio	h <sub>FE</sub> *1	250	_	800	250	_	800		$V_{CE} = -12 \text{ V},$
									$I_C = -2 \text{ mA}$
Collector to emitter	V <sub>CE(sat)</sub>	_	_	-0.2	_	_	-0.2	V	$I_C = -10 \text{ mA},$
saturation voltage									$I_B = -1 \text{ mA}$
Base to emitter voltage	$V_{BE}$	_	-0.6	_	_	-0.6		V	$V_{CE} = -12 \text{ V},$
									$I_C = -2 \text{ mA}$
Gain bandwidth product	f⊤	_	90	_	_	90		MHz	$V_{CE} = -12 \text{ V},$
									$I_C = -2 \text{ mA}$
Collector output	Cob	_	3.5	_	_	3.5		pF	$V_{CB} = -10 \text{ V}, I_E = 0,$
capacitance									f = 1 MHz
Noise voltage referred to	en	_	0.5	_		0.5		nV/	$V_{CE} = -6V$ ,
input								√Hz	$I_C = -10 \text{ mA},$
									f = 1  kHz,
									$R_g = 0$ , $\Delta f = 1Hz$

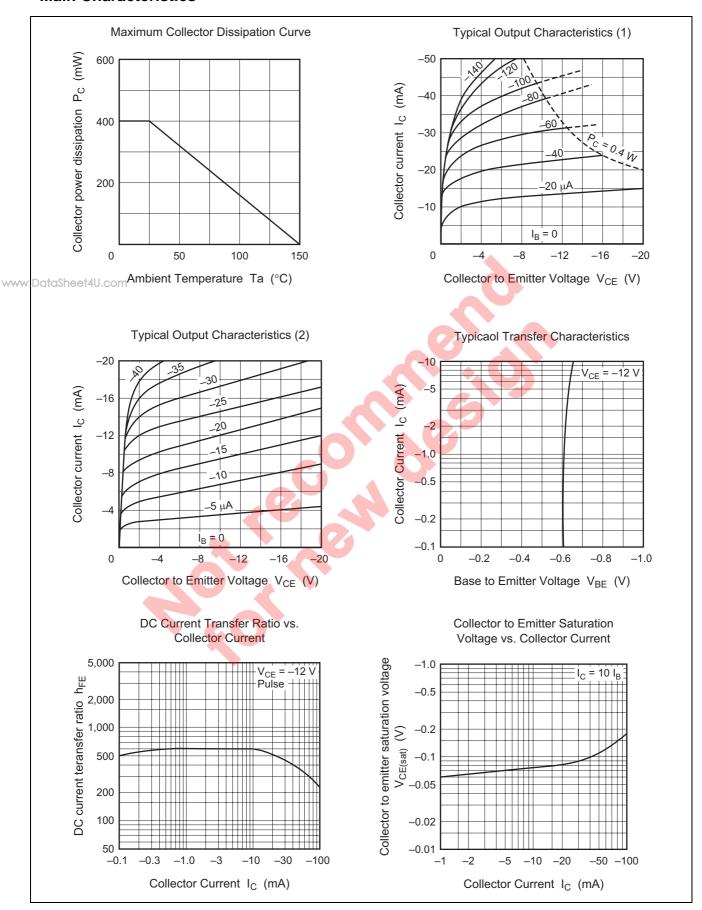
Note: 1. The 2SA1084 and 2SA1085 are grouped by hee as follows. 

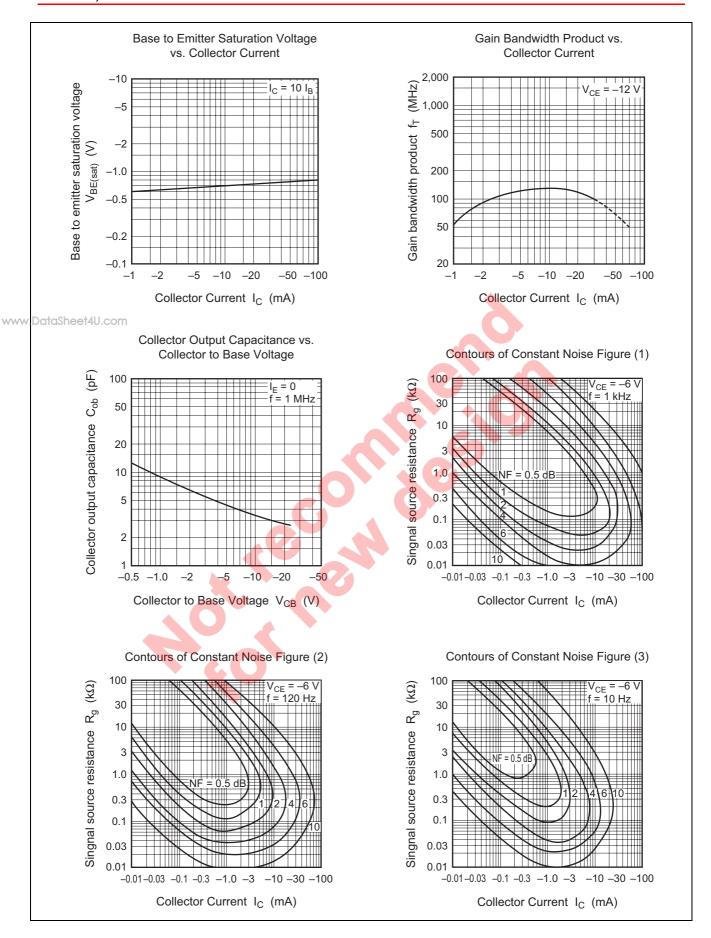
D	E		
250 to 500	400 to 800		

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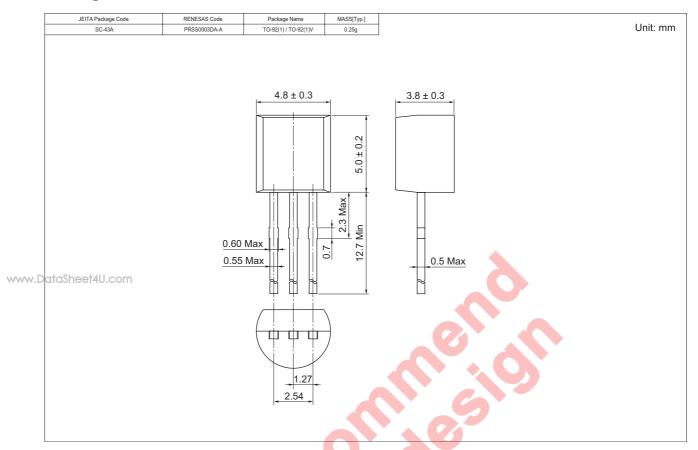


#### **Main Characteristics**





### **Package Dimensions**



### **Ordering Information**

Part Name	Q	uantity	Shipping Container
2SA1084ETZ-E	2500		Hold Box, Radial Taping
2SA1085DTZ-E			
2SA1085ETZ-E			

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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