

Description

- Digital transistor

Features

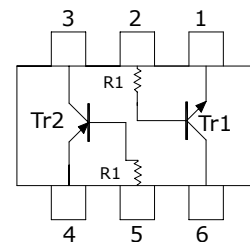
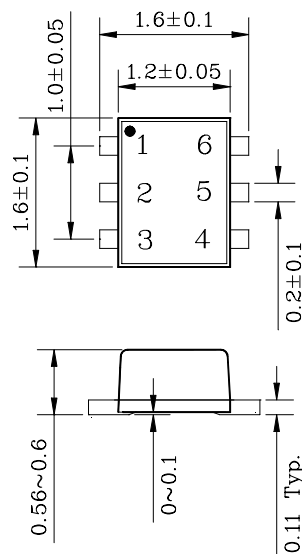
- Both SRC1210 chip and SRA2210 chip in SOT-563F package
- With built-in bias resistors

Ordering Information

Type NO.	Marking	Package Code
SUR540EF	SJ	SOT-563F

Outline Dimensions

unit : mm



	R_1
Tr1	$4.7K\Omega$
Tr2	$4.7K\Omega$

PIN Connections

1. Emitter 1
2. Base 1
3. Collector 2
4. Emitter 2
5. Base 2
6. Collector 1

Absolute maximum ratings (Tr1, Tr2)

Ta=25°C

Characteristic	Symbol	Ratings		Unit
		Tr1	Tr2	
Collector-Base Voltage	V_{CBO}	50	-50	V
Collector-Emitter Voltage	V_{CEO}	50	-50	
Emitter-Base Voltage	V_{EBO}	5	-5	V
Collector Current	I_C	100	-100	mA
Power Dissipation	P_D	100		mW
Junction Temperature	T_J	150		°C
Storage Temperature	T_{STG}	-55 ~ 150		°C

Electrical Characteristics(Tr1 : NPN)

Ta=25°C

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Collector Cut-off Current	I_{CBO}	$V_{CB}=50V, I_E=0$	-	-	500	nA
Emitter Cut-off Current	I_{EBO}	$V_{EB}=5V, I_C=0$	-	-	500	nA
DC Current Gain	h_{FE}	$V_{CE}=5V, I_C=1mA$	120	-	-	-
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	$I_C=10mA, I_B=0.5mA$	-	0.1	0.3	V
Transition Frequency	f_T^*	$V_{CE}=10V, I_C=5mA$	-	250	-	MHz
Input Resistance	R_1	-	-	4.7	-	KΩ
Collector Cut-off Current	I_{CBO}	$V_{CB}=50V, I_E=0$	-	-	500	nA

* : Characteristic of Transistor Only

Electrical Characteristics(Tr2 : PNP)

Ta=25°C

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Collector Cut-off Current	I_{CBO}	$V_{CB}=-50V, I_E=0$	-	-	-500	nA
Emitter Cut-off Current	I_{EBO}	$V_{EB}=-5V, I_C=0$	-	-	-500	nA
DC Current Gain	h_{FE}	$V_{CE}=-5V, I_C=-1mA$	120	-	-	-
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	$I_C=-10mA, I_B=-0.5mA$	-	-0.1	-0.3	V
Transition Frequency	f_T^*	$V_{CE}=-10V, I_C=-5mA$	-	250	-	MHz
Input Resistance	R_1	-	-	4.7	-	KΩ
Collector Cut-off Current	I_{CBO}	$V_{CB}=-50V, I_E=0$	-	-	-500	nA

* : Characteristic of Transistor Only

Electrical Characteristic Curves

Tr1 : NPN

Fig. 1 $h_{FE} - I_C$

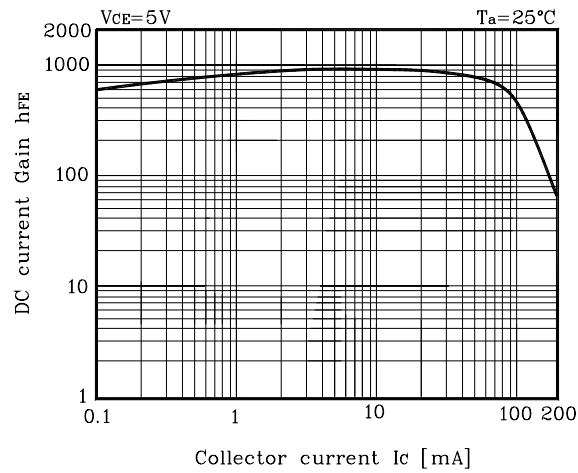
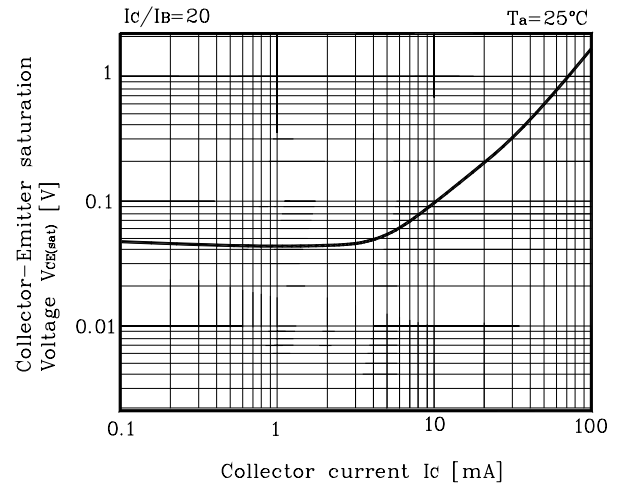


Fig. 2 $V_{CE(SAT)} - I_C$



Tr2 : PNP

Fig. 1 $h_{FE} - I_C$

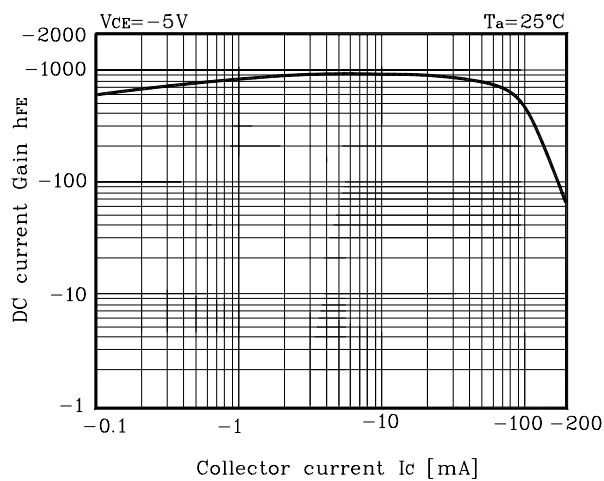
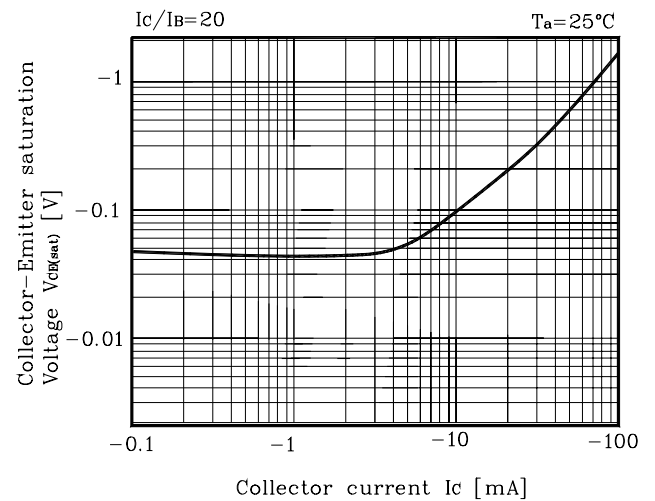


Fig. 2 $V_{CE(SAT)} - I_C$



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