



# SUR481H

NPN/PNP epitaxial planar Silicon Transistor

## Description

- Digital transistor

## Features

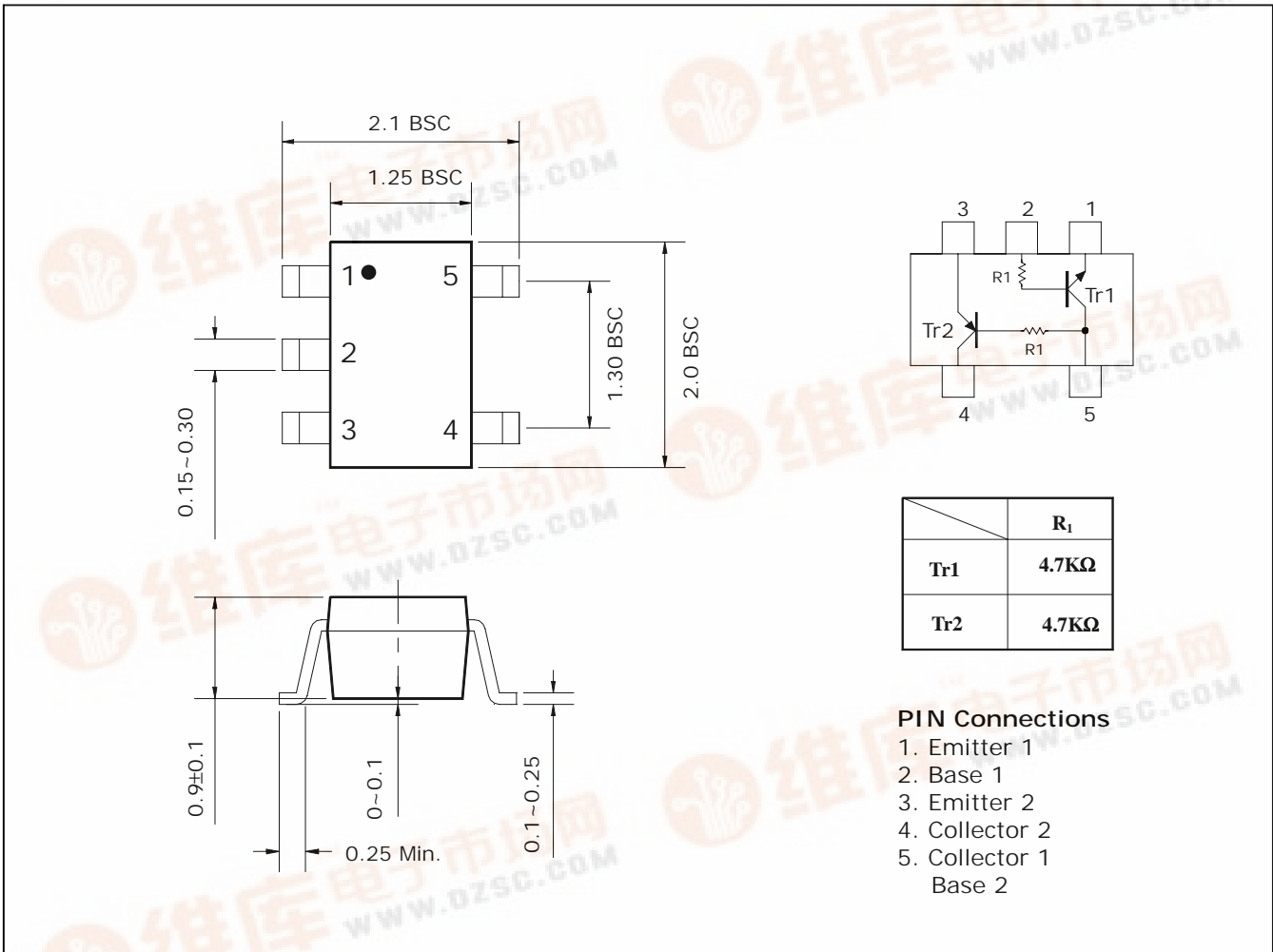
- Both SRC1210 chip and SRA2210 chip in SOT-353 package

## Ordering Information

Type NO.	Marking	Package Code
SUR481H	X4	SOT-353

## Outline Dimensions

unit : mm



# SUR481H

## Absolute maximum ratings(Tr1, Tr2)

(Ta=25°C)

Characteristic	Symbol	Ratings		Unit
		Tr1	Tr2	
Collector-Base Voltage	$V_{CB0}$	50	-50	V
Collector-Emitter Voltage	$V_{CEO}$	50	-50	V
Emitter-Base Voltage	$V_{EBO}$	10	-5	V
Collector Current	$I_C$	100	-100	mA
Power Dissipation	$P_D$	150		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

\* : 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

\* : Characteristic of Transistor Only

Electrical Characteristic Curves

Tr1 : NPN

Fig. 1  $h_{FE} - I_C$

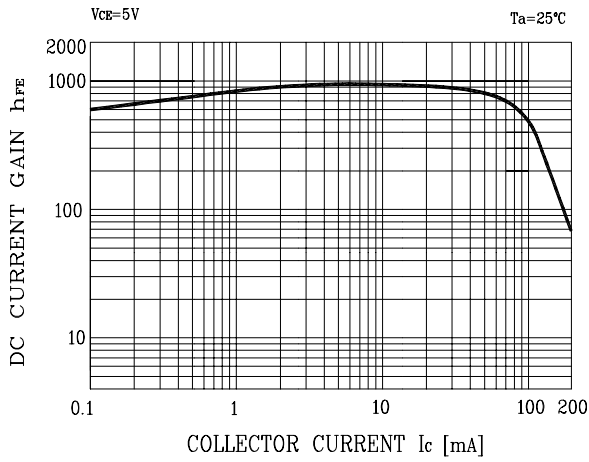
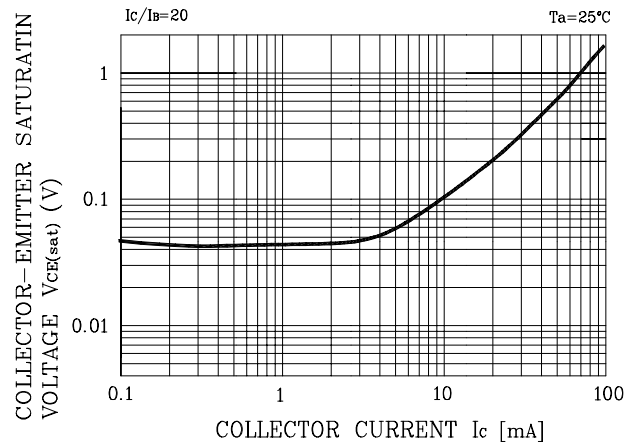


Fig. 2  $V_{CE(SAT)} - I_C$



Tr2 : PNP

Fig. 1  $h_{FE} - I_C$

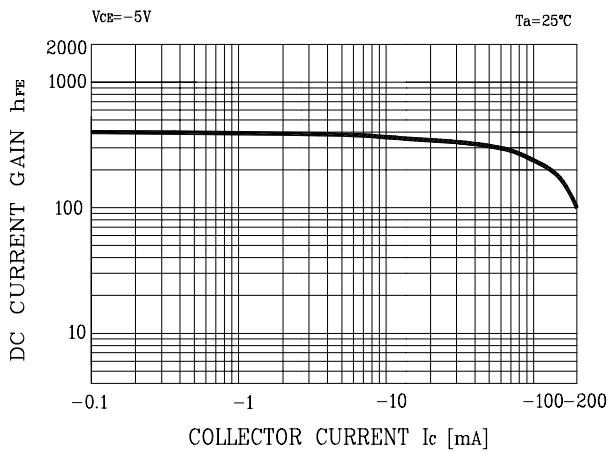


Fig. 2  $V_{CE(SAT)} - I_C$

