

# SUR529H

## **Epitaxial planar PNP silicon transistor**

## **Description**

• Dual chip digital transistor

## **Features**

- Two SRA2206 chips in SOT-353 package
- Simplify circuit design
- Reduce a quantity of parts and manufacturing process

#### Package: SOT-353

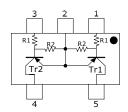
# **Ordering Information**

Type NO.	Marking	Package Code		
SUR529H	29H□	SOT-353		

☐ : Year & Week Code

# **Equivalent circuit & PIN Connections**

## • Equivalent Circuit



	$\mathbf{R}_{1}$	$\mathbf{R}_2$
Tr1	4.7ΚΩ	47ΚΩ
Tr2	4.7ΚΩ	47ΚΩ

#### **PIN Connections**

- 1. IN 1
- 2. COMMON 1,2
- 3. IN 2
- 4. OUT 2
- 5. OUT 1

**Absolute Maximum Ratings** [Tr1,Tr2]

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

Characteristic	Symbol	Rating	Unit
Output voltage	Vo	-50	V
Input voltage	V <sub>I</sub>	-20, 5	V
Output current	I <sub>O</sub>	-100	mA
Power dissipation	P <sub>D</sub> **	200	mW
Junction temperature	T <sub>3</sub>	150	°C
Storage temperature range	$T_{stg}$	-55 ~ 150	°C

\*: Total rating

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# **Electrical Characteristics** [Tr1,Tr2]

(Ta=25°C)

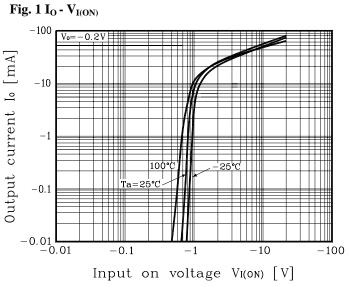
Characteristic	Symbol	Test Condition	Min.	Тур.	Max.	Unit
Output cut-off current	I <sub>O(OFF)</sub>	V <sub>O</sub> =-50V, V <sub>I</sub> =0	-	-	-500	nA
DC current gain	$G_{\mathrm{I}}$	V <sub>O</sub> =-5V, I <sub>O</sub> =-10mA	80	200	-	-
Output voltage	V <sub>O(ON)</sub>	$I_{O}$ =-10mA, $I_{I}$ =-0.5mA	-	-0.1	-0.3	V
Input voltage (ON)	$V_{I(ON)}$	V <sub>O</sub> =-0.2V, I <sub>O</sub> =-5mA	-	-0.9	-1.3	V
Input voltage (OFF)	$V_{I(OFF)}$	V <sub>O</sub> =-5V, I <sub>O</sub> =-0.1mA	-0.5	-0.65	-	V
Transition frequency	f <sub>T</sub> *	$V_O$ =-10V, $I_O$ =-5mA, f=1MHz	-	200	-	MHz
Input current	I <sub>I</sub>	$V_{\rm I}$ =-5V, $I_{\rm O}$ =0	-	-	-1.8	mA
Input resistor (Input to base)	$R_1$	-	3.3	4.7	6.1	<b>K</b> Ω
Input resistor (Base to common)	R <sub>2</sub>	-	33	47	61	<b>K</b> Ω

<sup>\* :</sup> Characteristic of transistor only

KSD-R5R013-001 2

# **Electrical Characteristic Curves**

[Tr1,Tr2]



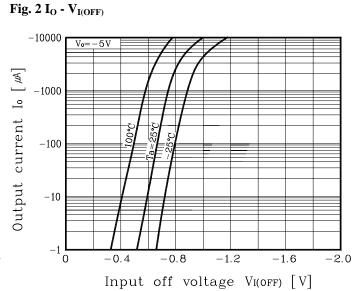
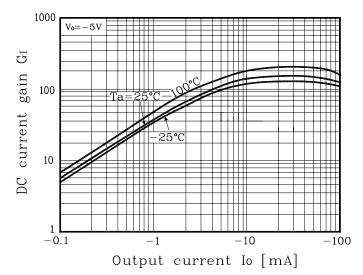


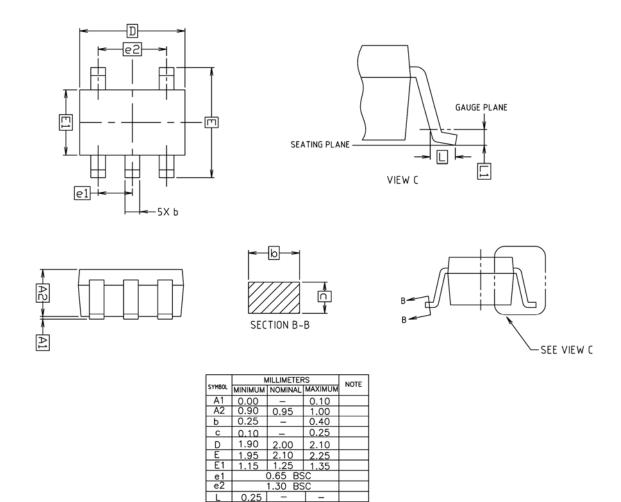
Fig. 3  $G_I$  -  $I_O$ 



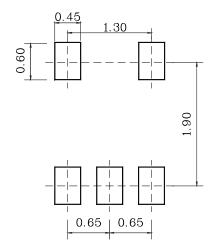
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3

# **Outline Dimension**



## \* Recommend PCB solder land [Unit: mm]



KSD-R5R013-001 4

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KSD-R5R013-001 5