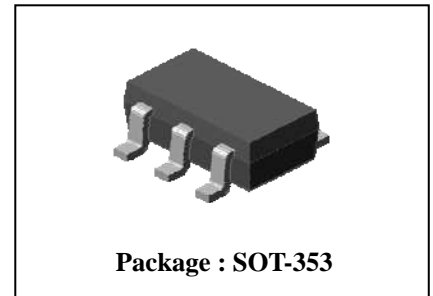


## Description

- Dual chip digital transistor

## Features

- Two SRC1203 chips in SOT-353 package
- Simplify circuit design
- Reduce a quantity of parts and manufacturing process



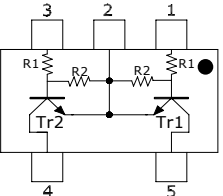
## Ordering Information

Type NO.	Marking	Package Code
SUR523H	23H□	SOT-353

□ : Year & Week Code

## Equivalent circuit & PIN Connections

• Equivalent Circuit



	R <sub>1</sub>	R <sub>2</sub>
Tr1	22KΩ	22KΩ
Tr2	22KΩ	22KΩ

**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°C)

Characteristic	Symbol	Rating	Unit
Output voltage	V <sub>O</sub>	50	V
Input voltage	V <sub>I</sub>	40,-10	V
Output current	I <sub>O</sub>	100	mA
Power dissipation	P <sub>D</sub> <sup>*</sup>	200	mW
Junction temperature	T <sub>J</sub>	150	°C
Storage temperature range	T <sub>stg</sub>	-55 ~ 150	°C

※: Total rating

## Electrical Characteristics [Tr1,Tr2]

(Ta=25°C)

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Output cut-off current	$I_{O(OFF)}$	$V_O=50V, V_I=0$	-	-	500	nA
DC current gain	$G_I$	$V_O=5V, I_O=10mA$	70	120	-	-
Output voltage	$V_{O(ON)}$	$I_O=10mA, I_I=0.5mA$	-	0.1	0.3	V
Input voltage (ON)	$V_{I(ON)}$	$V_O=0.2V, I_O=5mA$	-	2.1	3.0	V
Input voltage (OFF)	$V_{I(OFF)}$	$V_O=5V, I_O=0.1mA$	1.0	1.2	-	V
Transition frequency	$f_T^*$	$V_O=10V, I_O=5mA, f=1MHz$	-	200	-	MHz
Input current	$I_I$	$V_I=5V, I_O=0$	-	-	0.36	mA
Input resistor (Input to base)	$R_1$	-	15.4	22	28.6	K $\Omega$
Input resistor (Base to common)	$R_2$	-	15.4	22	28.6	K $\Omega$

\* : Characteristic of transistor only

Electrical Characteristic Curves

[Tr1,Tr2]

Fig. 1  $I_O - V_{I(ON)}$

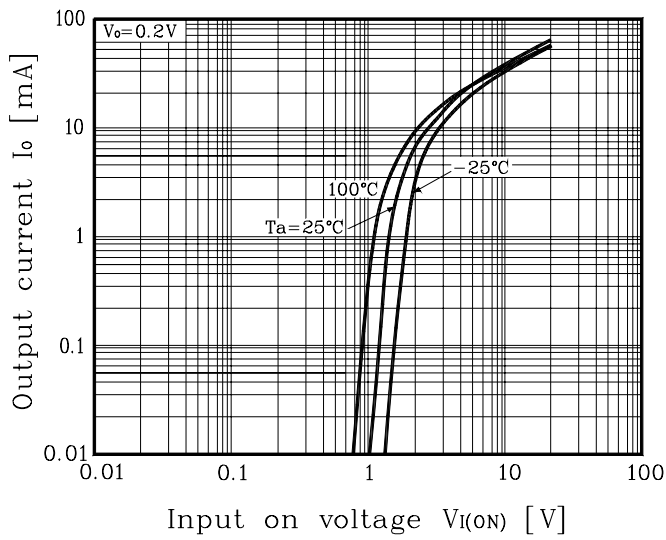


Fig. 2  $I_O - V_{I(OFF)}$

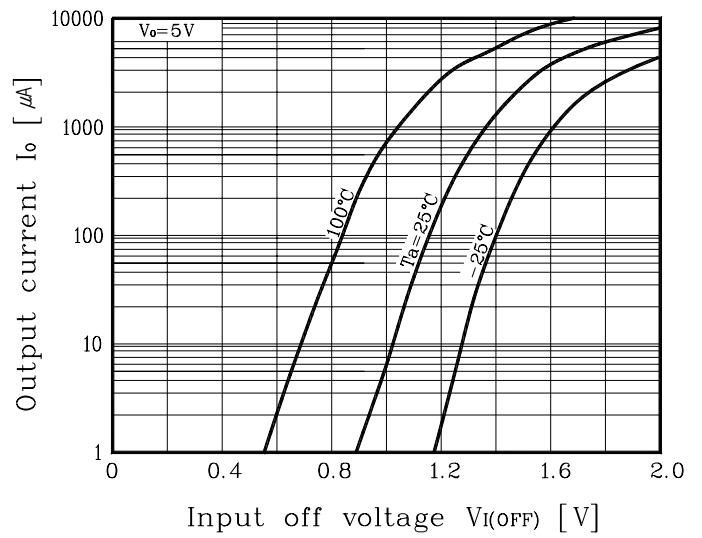
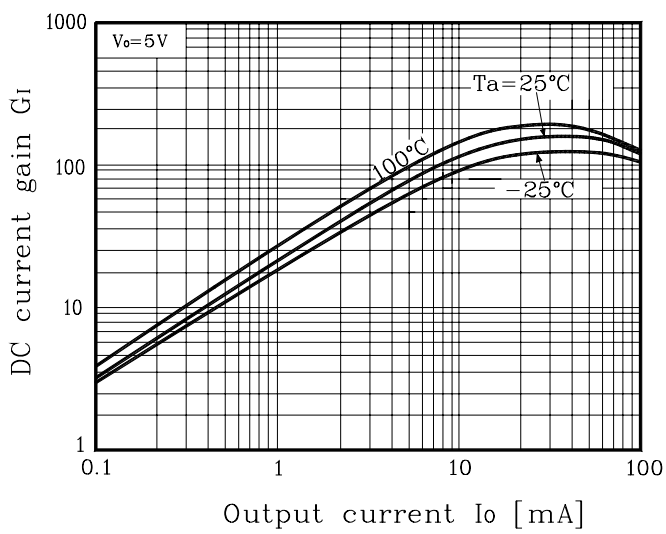
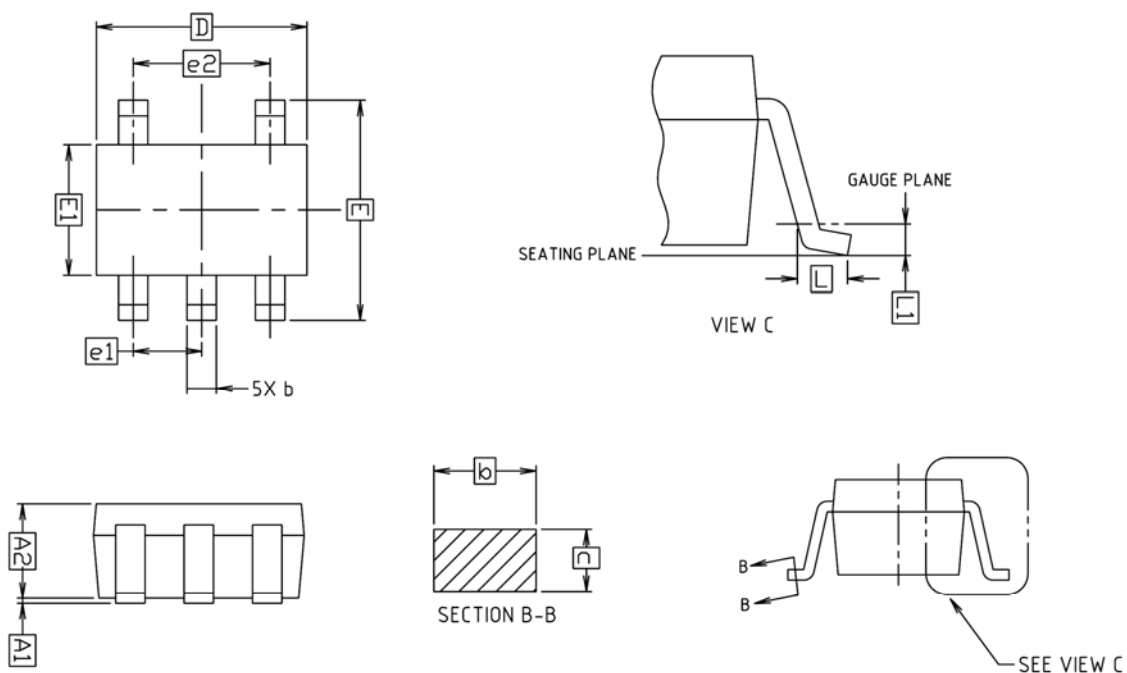


Fig. 3  $G_I - I_O$

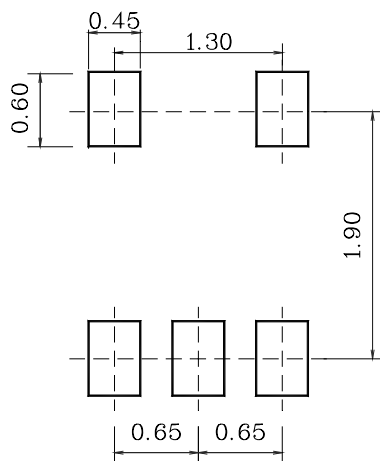


Outline Dimension



SYMBOL	MILLIMETERS			NOTE
	MINIMUM	NOMINAL	MAXIMUM	
A1	0.00	-	0.10	
A2	0.90	0.95	1.00	
b	0.25	-	0.40	
c	0.10	-	0.25	
D	1.90	2.00	2.10	
E	1.95	2.10	2.25	
E1	1.15	1.25	1.35	
e1		0.65 BSC		
e2		1.30 BSC		
L	0.25	-	-	
L1		0.15 BSC		

※ Recommend PCB solder land [Unit: mm]



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