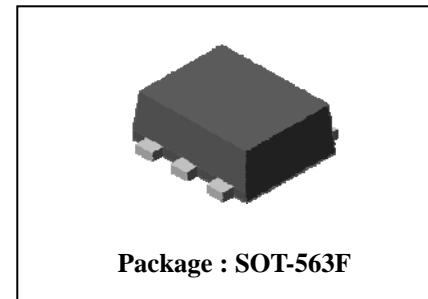


## Description

- Dual chip digital transistor

## Features

- Two SRC1204 chips in SOT-563F package
- Simplify circuit design
- Reduce a quantity of parts and manufacturing process

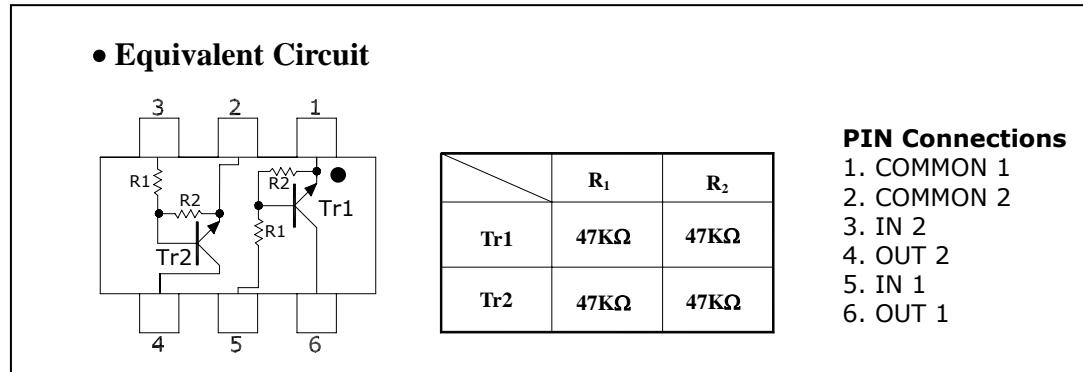


## Ordering Information

Type NO.	Marking	Package Code
SUR510EF	9X□	SOT-563F

□ : Year & Week Code

## Equivalent circuit & PIN Connections



## 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> *	150	mW
Junction temperature	T <sub>J</sub>	150	°C
Storage temperature range	T <sub>stg</sub>	-55 ~ 150	°C

\* : Total rating

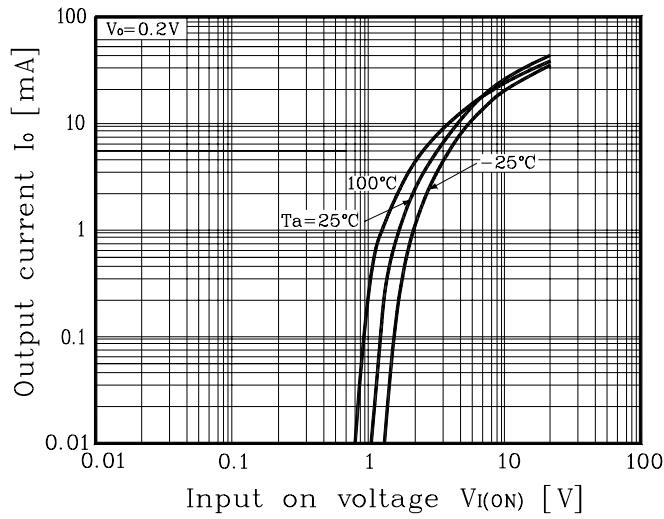
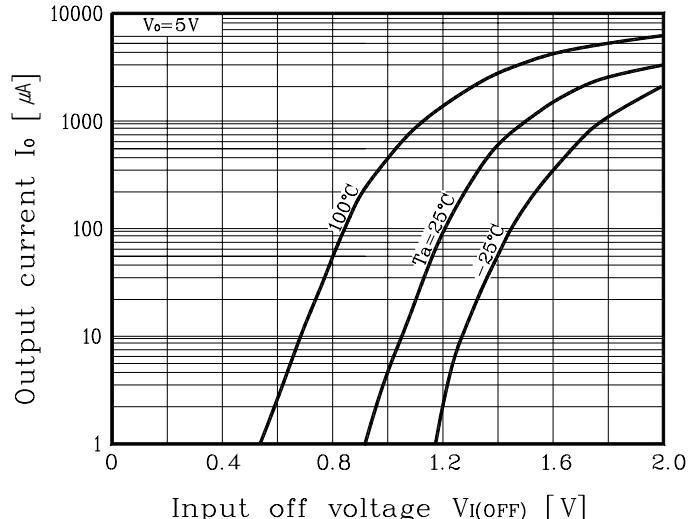
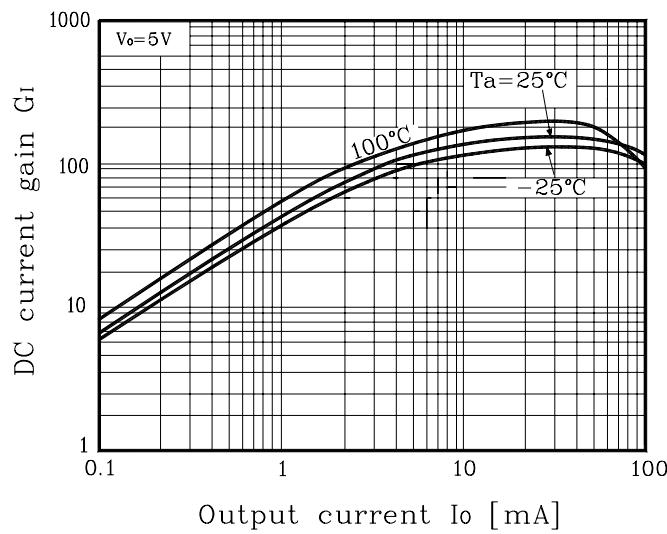
**Electrical Characteristics [Tr1,Tr2]**

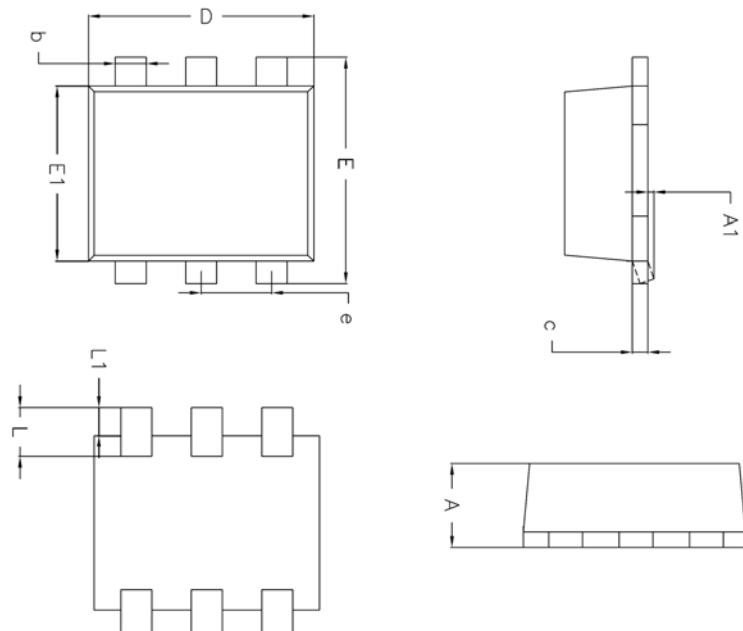
(Ta=25°C)

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Output cut-off current	I <sub>O(OFF)</sub>	V <sub>O</sub> =50V, V <sub>I</sub> =0	-	-	500	nA
DC current gain	G <sub>I</sub>	V <sub>O</sub> =5V, I <sub>O</sub> =10mA	80	200	-	-
Output voltage	V <sub>O(ON)</sub>	I <sub>O</sub> =10mA, I <sub>I</sub> =0.5mA	-	0.1	0.3	V
Input voltage (ON)	V <sub>I(ON)</sub>	V <sub>O</sub> =0.2V, I <sub>O</sub> =5mA	-	2.8	5.0	V
Input voltage (OFF)	V <sub>I(OFF)</sub>	V <sub>O</sub> =5V, I <sub>O</sub> =0.1mA	1.0	1.2	-	V
Transition frequency	f <sub>T</sub> *	V <sub>O</sub> =10V, I <sub>O</sub> =5mA, f=1MHz	-	200	-	MHz
Input current	I <sub>I</sub>	V <sub>I</sub> =5V, I <sub>O</sub> =0	-	-	0.18	mA
Input resistor (Input to base)	R <sub>1</sub>	-	33	47	61	KΩ
Input resistor (Base to common)	R <sub>2</sub>	-	33	47	61	KΩ

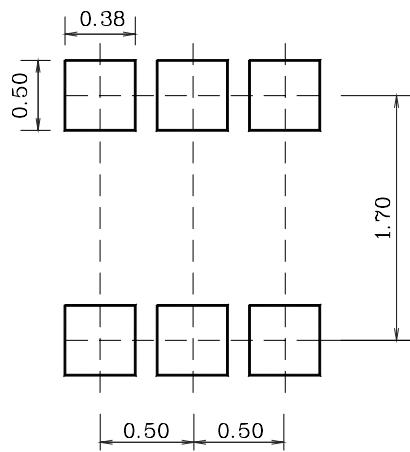
\*: Characteristic of transistor only

## 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	
A	0.53	0.58	0.62	
A1	0.00	—	0.10	
A2	—	—	—	
b	0.15	0.20	0.30	
c	0.10	0.11	0.18	
D	1.50	1.60	1.70	
E	1.50	1.60	1.70	
E1	1.10	1.20	1.30	
e	0.50 BSC			
L	0.25	0.35	0.45	
L1	0.13	0.20	0.27	

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

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