

Descriptions

- Dual chip digital transistor

Features

- Two SRA2204 chips in SOT-563F package
- Simplify circuit design
- Reduce a quantity of parts and manufacturing process



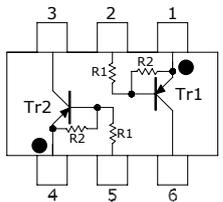
Ordering Information

Type NO.	Marking	Package Code
SUR502EF	SS□	SOT-563F

□ : Year & Week Code

Equivalent circuit & PIN Connections

• Equivalent Circuit



	R ₁	R ₂
Tr1	47KΩ	47KΩ
Tr2	47KΩ	47KΩ

PIN Connections

1. COMMON 1
2. IN 1
3. OUT 2
4. COMMON 2
5. IN 2
6. OUT 1

Absolute Maximum Ratings [Tr1, Tr2]

(Ta=25°C)

Characteristic	Symbol	Rating	Unit
Output voltage	V _O	-50	V
Input voltage	V _I	-40, 10	V
Output current	I _O	-100	mA
Power dissipation	P _D [*]	150	mW
Junction temperature	T _J	150	°C
Storage temperature range	T _{stg}	-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	$V_O=-5V, I_O=-10mA$	80	200	-	-
Output voltage	$V_{O(ON)}$	$I_O=-10mA, I_I=-0.5mA$	-	-0.1	-0.3	V
Input voltage (ON)	$V_{I(ON)}$	$V_O=-0.2V, I_O=-5mA$	-	-2.8	-5.0	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	$V_I=-5V, I_O=0$	-	-	-0.18	mA
Input resistor (Input to base)	R_1	-	33	47	61	K Ω
Input resistor (Base to common)	R_2	-	33	47	61	K Ω

* : Characteristic of transistor only

Electrical Characteristic Curves
[Tr1, Tr2]

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

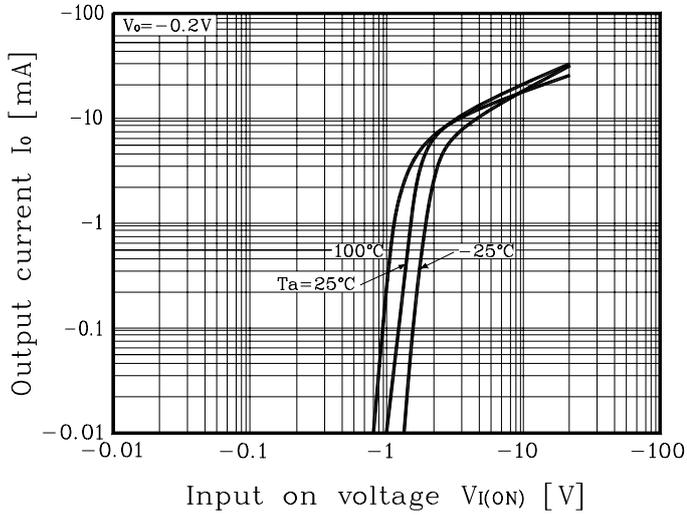


Fig. 2 $I_O - V_{I(OFF)}$

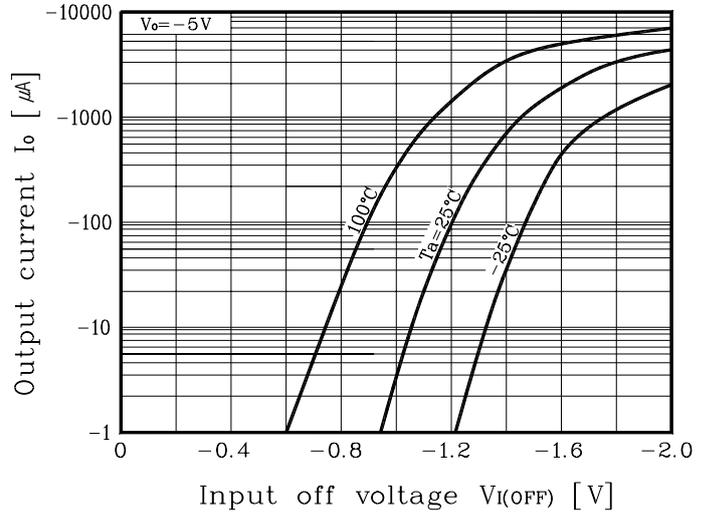
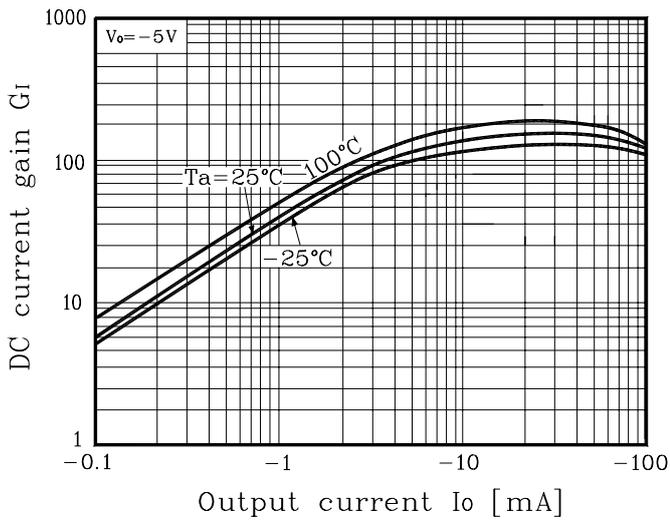
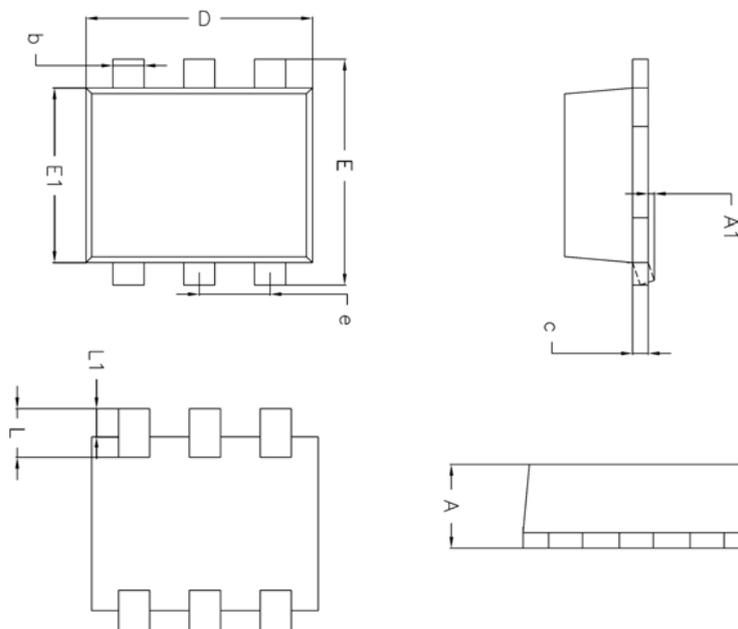


Fig. 3 $G_I - I_O$

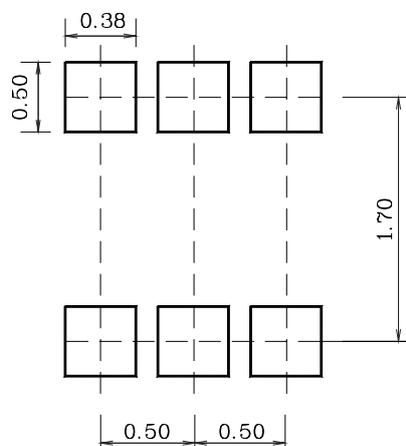


Outline Dimension



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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