

## Description

- Dual chip digital transistor

## Features

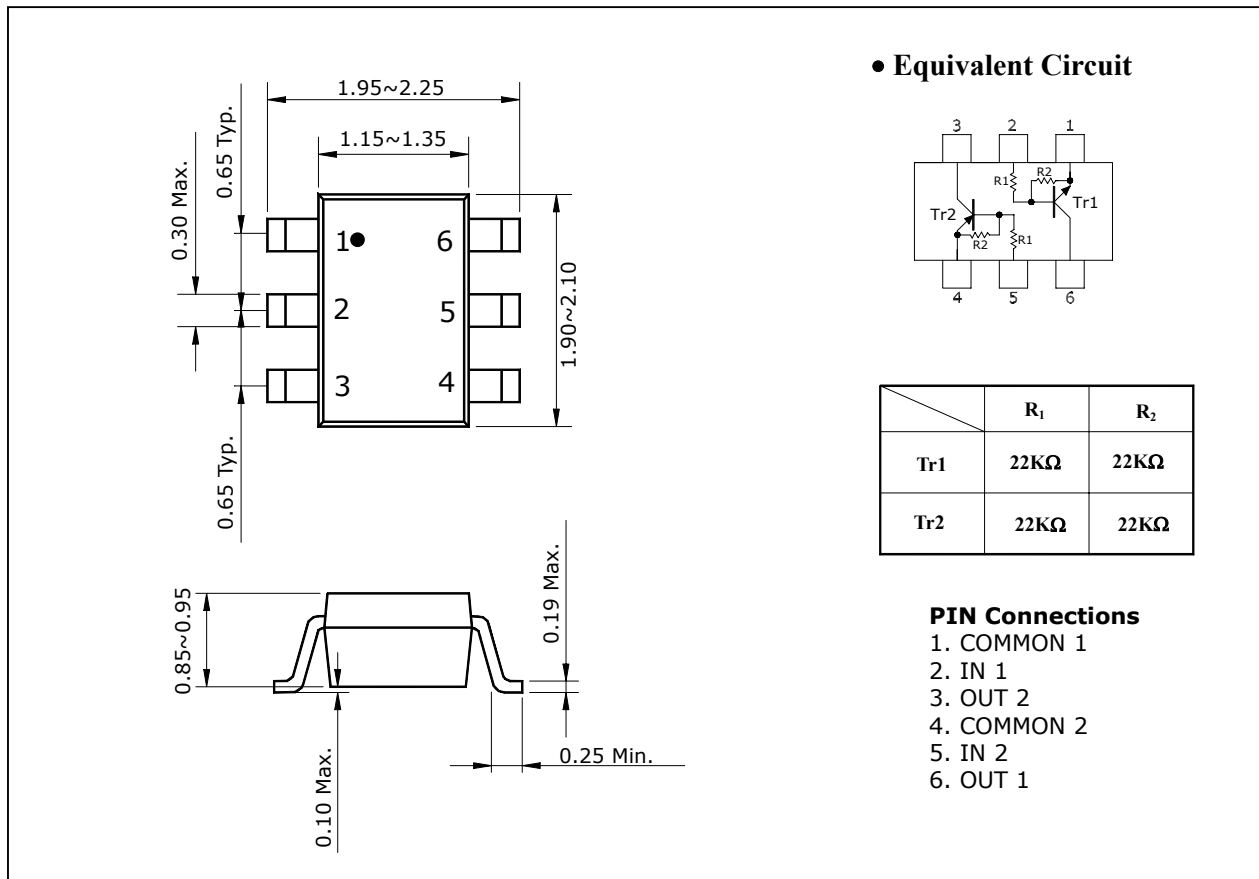
- Both SRC1203 chips and SRA2203 chip in SOT-363 package
- Simplify circuit design
- Reduce a quantity of parts and manufacturing process

## Ordering Information

Type NO.	Marking	Package Code
SUR551J	51J	SOT-363

## Outline Dimensions

unit : mm



## Absolute Maximum Ratings [Tr1, Tr2]

(Ta=25°C)

Characteristic	Symbol	Rating		Unit
		Tr1	Tr2	
Output voltage	$V_O$	50	-50	V
Input voltage	$V_I$	40,-10	-40,10	V
Output current	$I_O$	100	-100	mA
Power dissipation	$P_D^*$	200		mW
Junction temperature	$T_J$	150		°C
Storage temperature Range	$T_{stg}$	-55 ~ 150		°C

※ : Total rating

## Electrical Characteristics [Tr1]

(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 Characteristics [Tr2]

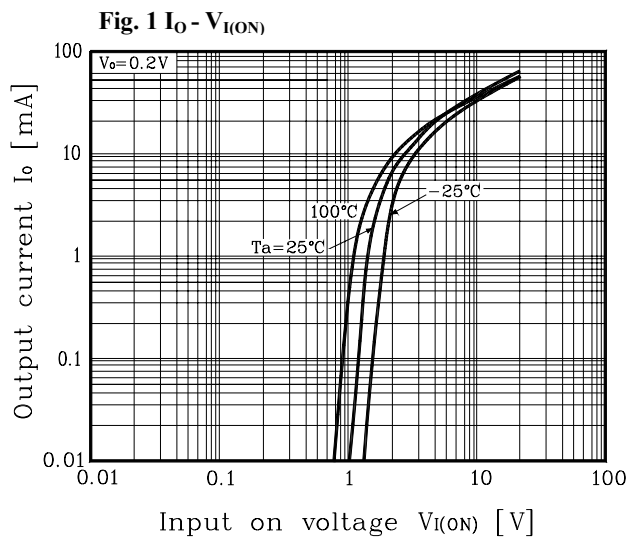
(Ta=25°C)

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 $\Omega$

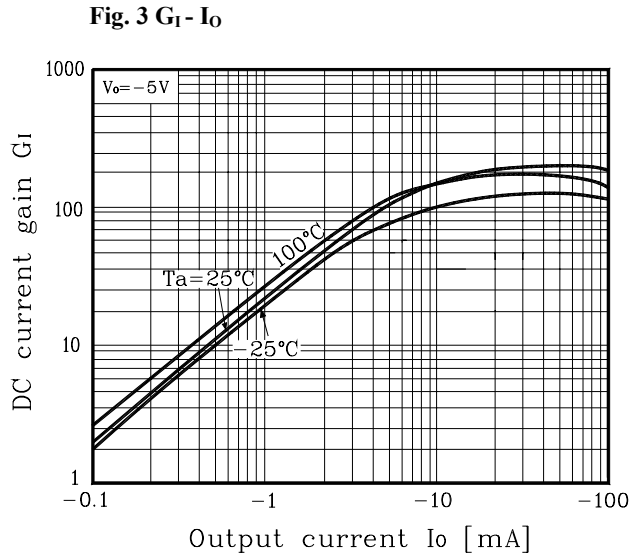
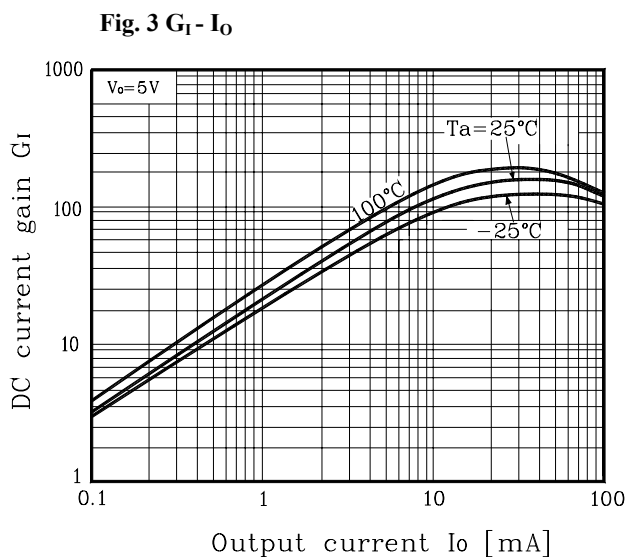
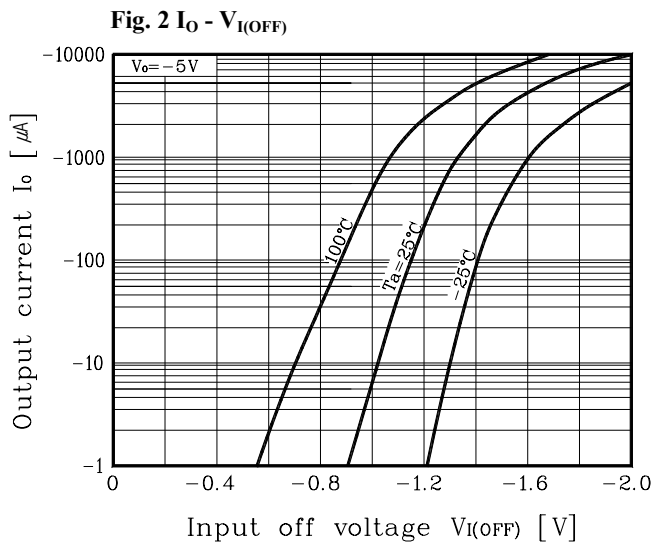
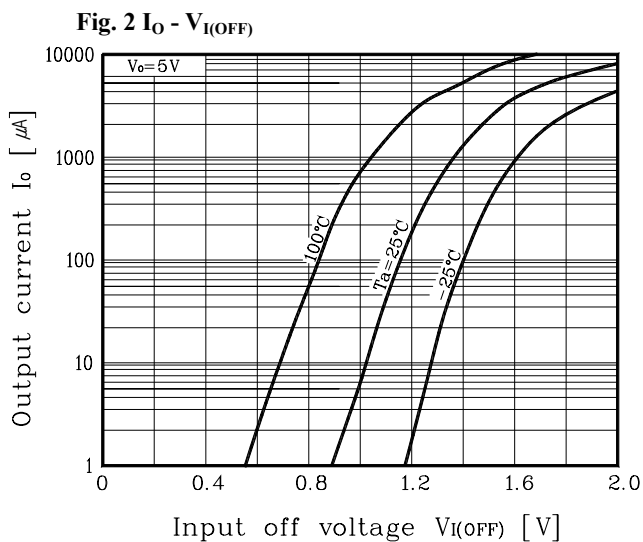
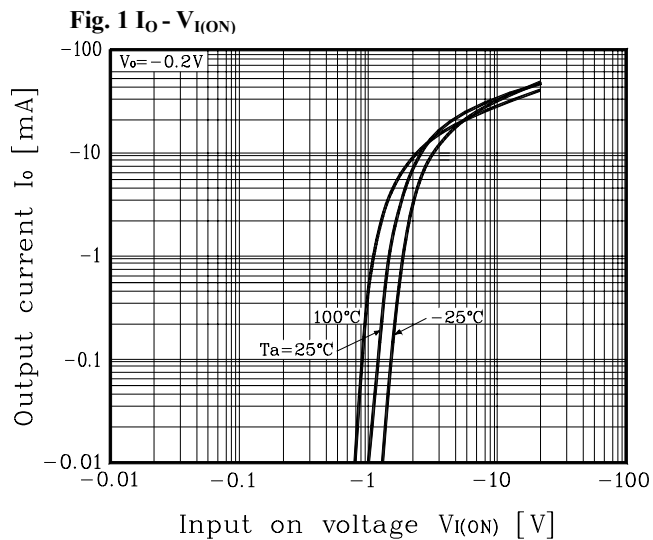
\* : Characteristic of transistor only

Electrical Characteristic Curves

[ Tr1]



[ Tr2]



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