

## Description

- Dual chip digital transistor

## Features

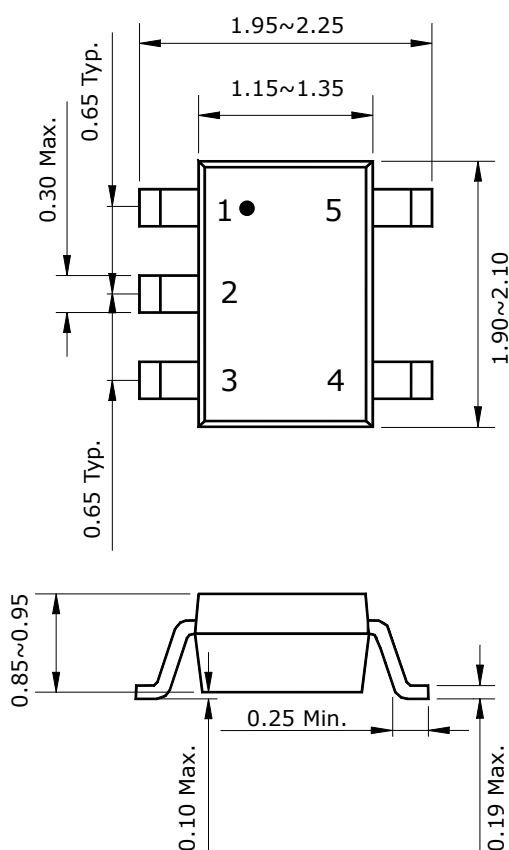
- Two SRA2219 chips in SOT-353 package
- Simplify circuit design
- Reduce a quantity of parts and manufacturing process

## Ordering Information

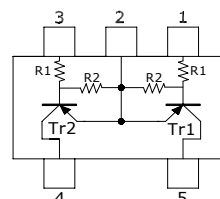
Type NO.	Marking	Package Code
SUR533H	33H	SOT-353

## Outline Dimensions

unit : mm



### • Equivalent Circuit



	R <sub>1</sub>	R <sub>2</sub>
Tr1	4.7KΩ	10KΩ
Tr2	4.7KΩ	10KΩ

### 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	$V_O$	-50	V
Input voltage	$V_I$	-20, 7	V
Output current	$I_O$	-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,Tr2]**

(Ta=25°C)

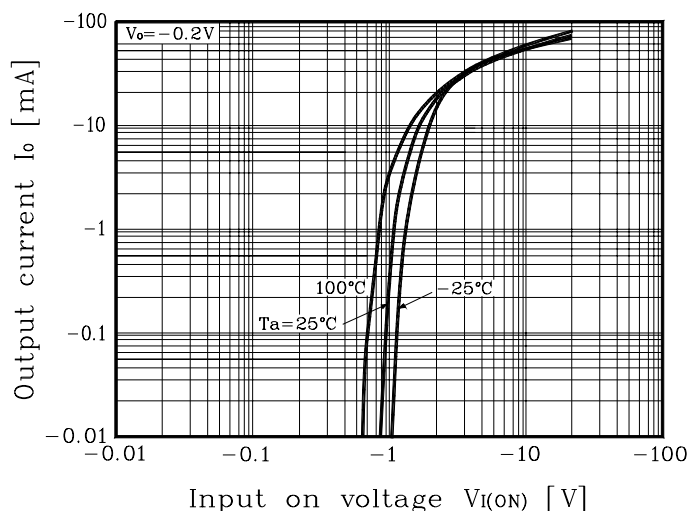
Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Output cut-off current	$I_{O(OFF)}$	$V_O = -50V, V_I = 0$	-	-	-500	nA
DC current gain	$G_I$	$V_O = -5V, I_O = -10mA$	30	-	-	-
Output voltage	$V_{O(ON)}$	$I_O = -10mA, I_I = -0.5mA$	-	-0.1	-0.3	V
Input voltage (ON)	$V_{I(ON)}$	$V_O = -0.2V, I_O = -5mA$	-	-1.2	-1.6	V
Input voltage (OFF)	$V_{I(OFF)}$	$V_O = -5V, I_O = -0.1mA$	-0.5	-0.82	-	V
Transition frequency	$f_T^*$	$V_O = -10V, I_O = -5mA, f = 1MHz$	-	200	-	MHz
Input current	$I_I$	$V_I = -5V, I_O = 0$	-	-	-1.8	mA
Input resistor (Input to base)	$R_1$	-	3.3	4.7	6.1	KΩ
Input resistor (Base to common)	$R_2$	-	7	10	13	KΩ

\*: Characteristic of transistor only

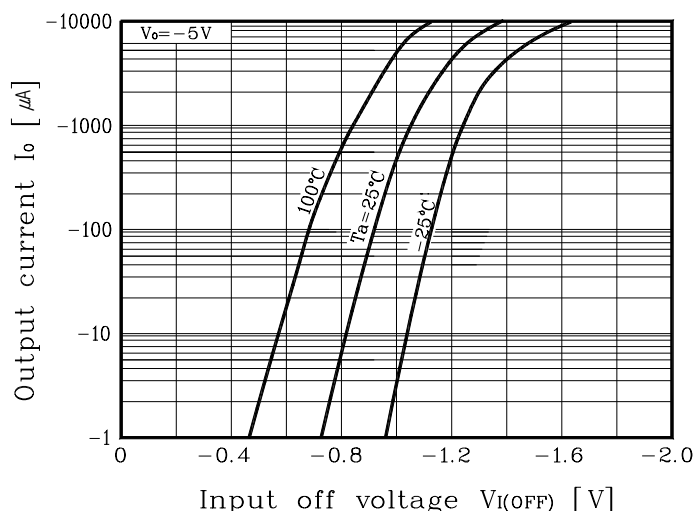
## Electrical Characteristic Curves

[Tr1,Tr2]

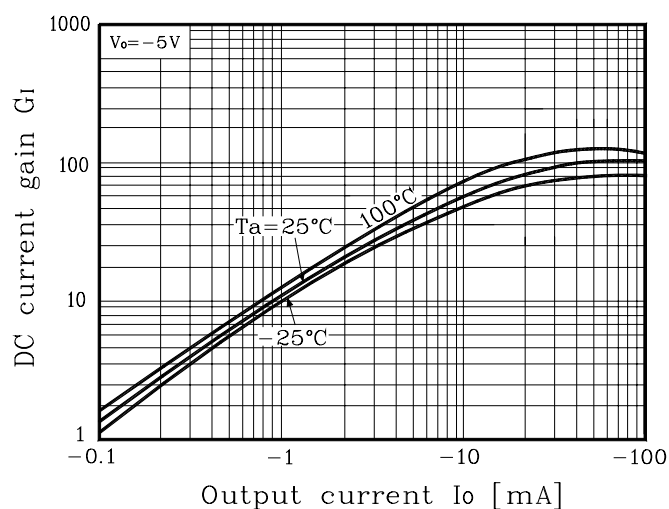
**Fig. 1  $I_O - V_{I(ON)}$**



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



**Fig. 3  $G_I - I_O$**



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