

Description

- Dual chip digital transistor

Features

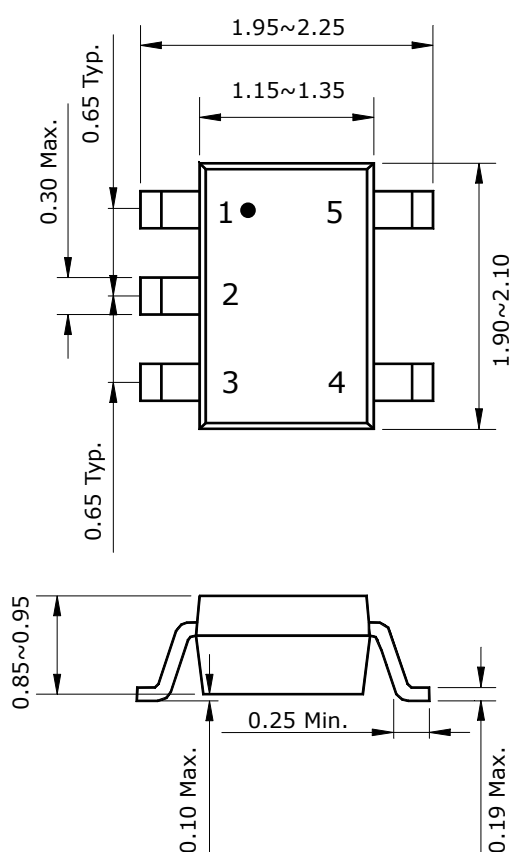
- Two SRA2219 chips in SOT-353 package
- Simplify circuit design
- Reduce a quantity of parts and manufacturing process

Ordering Information

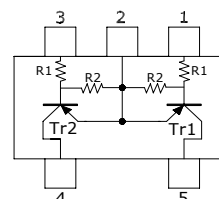
Type NO.	Marking	Package Code
SUR533H	33H	SOT-353

Outline Dimensions

unit : mm



• Equivalent Circuit



	R ₁	R ₂
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 $I_O - V_{I(ON)}$

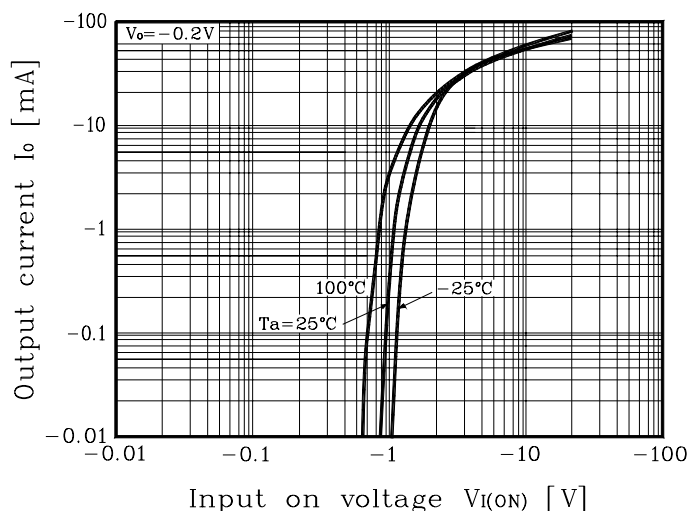


Fig. 2 $I_O - V_{I(OFF)}$

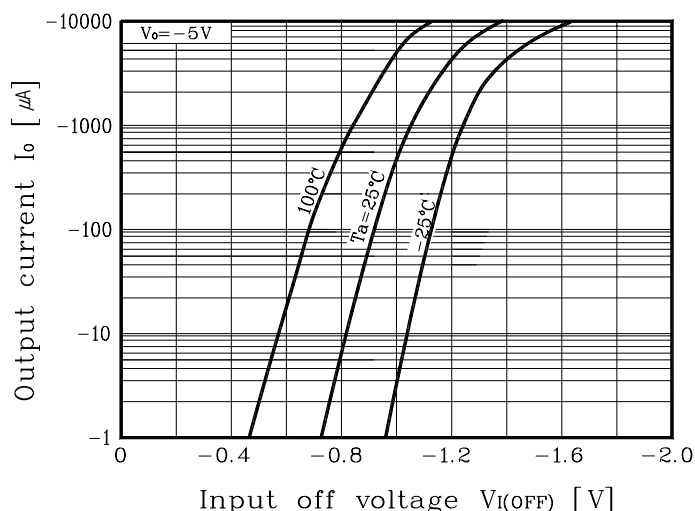
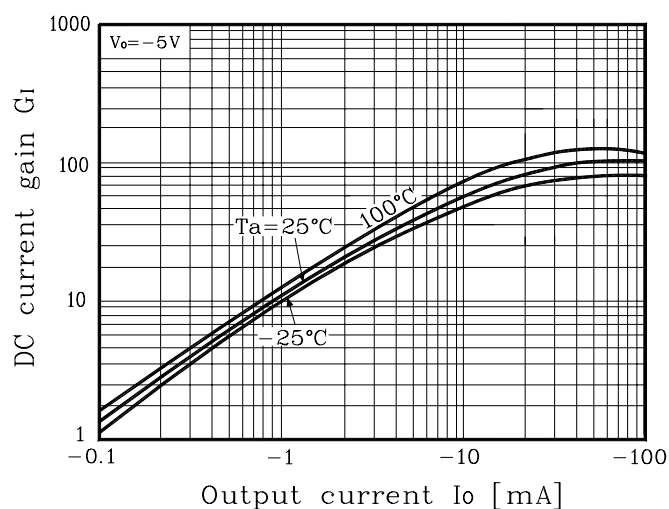


Fig. 3 $G_I - I_O$



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