AUK Semiconductor

SUR537H

Epitaxial planar PNP silicon transistor

Description

- Dual chip digital transistor

Features

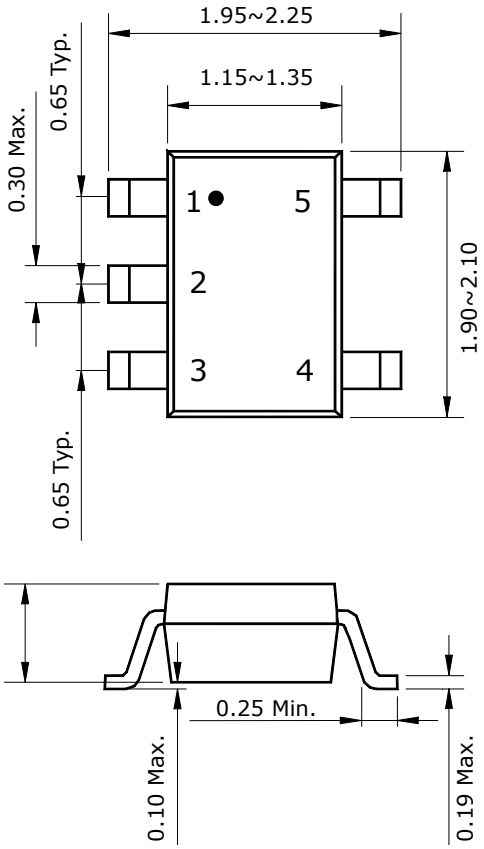
- Two SRA2211 chips in SOT-353 package
- Simplify circuit design
- Reduce a quantity of parts and manufacturing process

Ordering Information

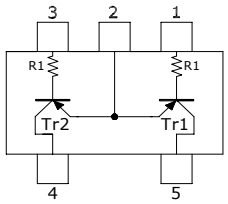
Type NO.	Marking	Package Code
SUR537H	37H	SOT-353

Outline Dimensions

unit : mm



• **Equivalent Circuit**



	R_1
Tr1	10KΩ
Tr2	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	-30, 5	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	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	-	-0.9	-1.4	V
Input voltage (OFF)	$V_{I(OFF)}$	V_O=-5V, I_O=-0.1mA	-0.3	-0.55	-	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	-	-	-0.88	mA
Input resistor (Input to base)	R_1	-	7	10	13	KΩ

* : Characteristic of transistor only

Electrical Characteristic Curves

[Tr1,Tr2]

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

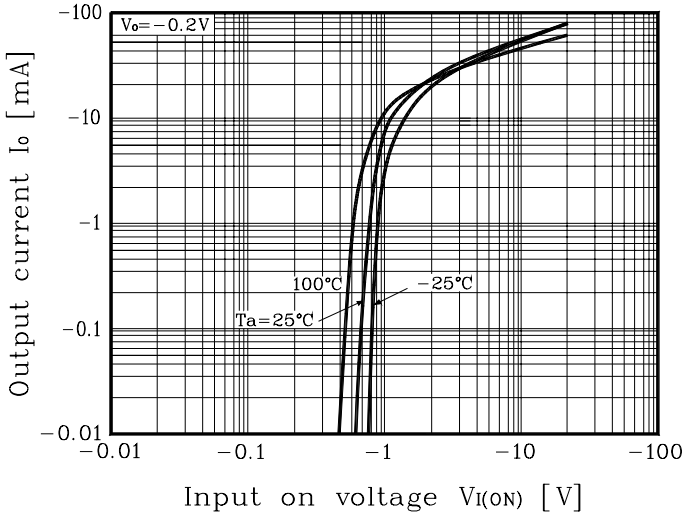


Fig. 2 I_O - $V_{I(OFF)}$

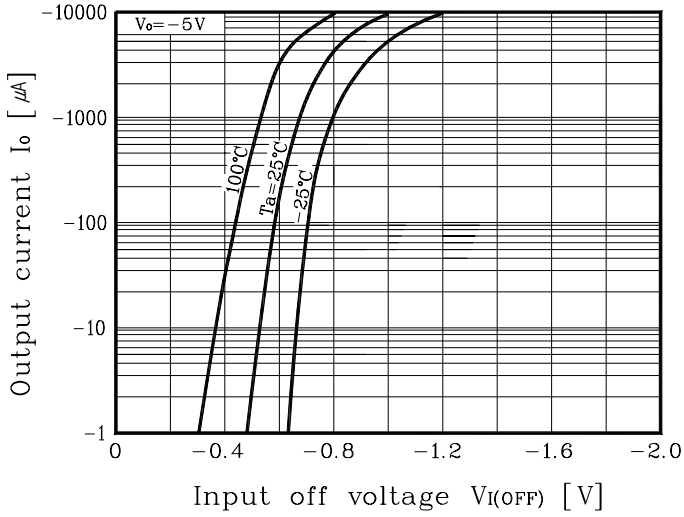
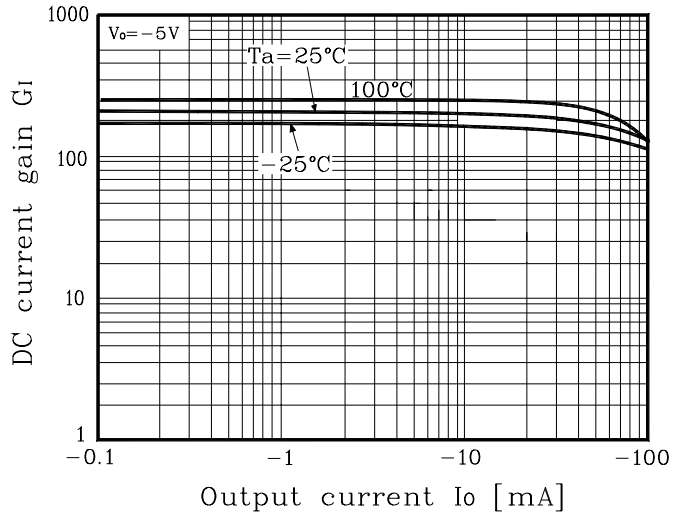


Fig. 3 G_I - I_O



The AUK Corp. products are intended for the use as components in general electronic equipment (Office and communication equipment, measuring equipment, home appliance, etc.).

Please make sure that you consult with us before you use these AUK Corp. products in equipments which require high quality and / or reliability, and in equipments which could have major impact to the welfare of human life(atomic energy control, airplane, spaceship, transportation, combustion control, all types of safety device, etc.). AUK Corp. cannot accept liability to any damage which may occur in case these AUK Corp. products were used in the mentioned equipments without prior consultation with AUK Corp..

Specifications mentioned in this publication are subject to change without notice.