

SUR542EF

Epitaxial Planar Type NPN Silicon Transistor

Descriptions

• Digital transistor

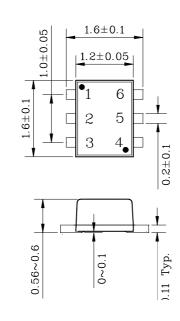
Features

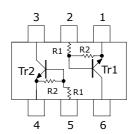
- Two SRC1207 chips in SOT-563F package
- With built-in bias resistors

Ordering Information

Type NO.	Marking	Package Code		
SUR542EF	SK	SOT-563F		

Outline Dimensions unit: mm





	R ₁	R ₂
Tr1	10ΚΩ	47ΚΩ
Tr2	10ΚΩ	47ΚΩ

PIN Connections

- 1. Emitter 1
- 2. Base 1
- 3. Collector 2
- 4. Emitter 2
- 5. Base 2
- 6. Collector 1

Absolute maximum ratings (Tr1, Tr2)

Ta=25°C

Characteristic	Symbol	Ratings	Unit
Out Voltage	Vo	50	V
Input Voltage	V_{I}	30	V
Out Current	I_{O}	100	mA
Power Dissipation	P_D	100	mW
Junction Temperature	Tı	150	°C
Storage Temperature	T_{STG}	-55 ~ 150	°C

Electrical Characteristics(Tr1, Tr2 : PNP)

Ta=25°C

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Output Cut-off Current	I _{O(OFF)}	$V_0 = 50V, V_I = 0$	-	-	500	nA
DC Current Gain	G_{I}	V _O =5V, I _O =10mA	80	150	-	-
Output Voltage	$V_{O(ON)}$	$I_O=10$ mA, $I_I=0.5$ mA	-	0.1	0.3	V
Input Voltage (ON)	$V_{I(ON)}$	V _O =0.2V, I _O =5mA	-	-	1.8	V
Input Voltage (OFF)	$V_{I(OFF)}$	V _O =5V, I _O =0.1mA	0.5	-	-	V
Transition Frequency	f _T *	$V_O=10V$, $I_O=5mA$	-	200	-	MHz
Input Current	$I_{\rm I}$	$V_{\rm I}$ =5V	-	-	0.88	mA

^{* :} Characteristic of Transistor Only

Electrical Characteristic Curves

Tr1, Tr2: NPN



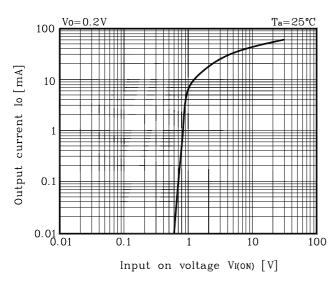


Fig. 2 $I_{\rm O}$ - $V_{\rm I(OFF)}$

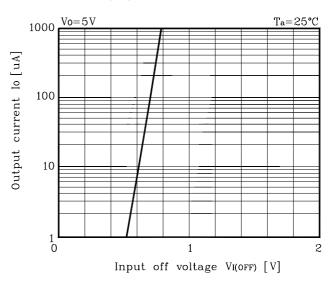
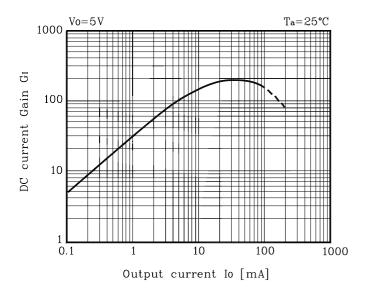


Fig. 3 G_I - I_O



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