SUR540J

Epitaxial planar NPN silicon transistor

Description

• Dual chip digital transistor

Features

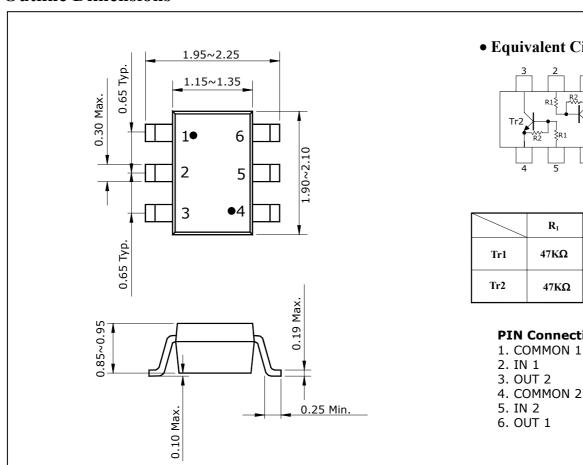
- Two SRC1204 chips in SOT-363 package
- Simplify circuit design
- Reduce a quantity of parts and manufacturing process

Ordering Information

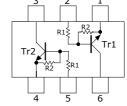
Type NO.	Marking	Package Code		
SUR540J	Н8Н	SOT-363		

Outline Dimensions

unit: mm



• Equivalent Circuit



	R_1	\mathbb{R}_2
Tr1	47ΚΩ	47ΚΩ
Tr2	47ΚΩ	47ΚΩ

PIN Connections

KSD-R5S008-000 1 Absolute Maximum Ratings [Tr1,Tr2]

(Ta=25°C)

Characteristic	Symbol	Rating	Unit
Output voltage	Vo	50	V
Input voltage	V _I	40,-10	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.	Тур.	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	80	200	-	-
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	-	2.8	5.0	V
Input voltage (OFF)	$V_{I(OFF)}$	V _O =5V, I _O =0.1mA	1.0	1.2	-	V
Transition frequency	f _T *	$V_0=10V$, $I_0=5mA$, $f=1MHz$	-	200	-	MHz
Input current	$I_{\rm I}$	$V_I=5V$, $I_O=0$	-	-	0.18	mA
Input resistor (Input to base)	R_1	-	33	47	61	K Ω
Input resistor (Base to common)	R ₂	-	33	47	61	K Ω

^{* :} Characteristic of transistor only

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Electrical Characteristic Curves

[Tr1, Tr2]

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

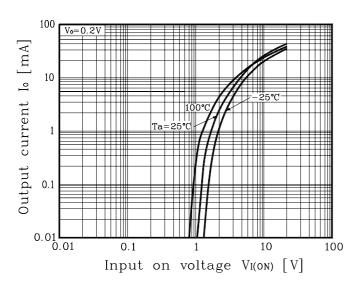


Fig. 2 I_O - $V_{I(OFF)}$

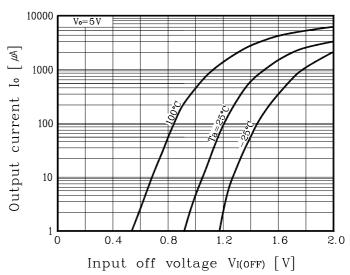
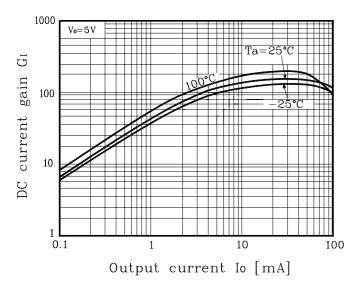


Fig. 3 G_I - I_O



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