

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

Jy

Package: SOT-363

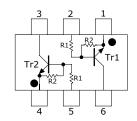
Ordering Information

Type NO.	Marking	Package Code
SUR540J	H8H□	SOT-363

□ : Year & Week Code

Equivalent circuit & PIN Connections

• Equivalent Circuit



	\mathbf{R}_{1}	\mathbf{R}_2
Tr1	47ΚΩ	47ΚΩ
Tr2	47ΚΩ	47ΚΩ

PIN Connections

- 1. COMMON 1
- 2. IN 1
- 3. OUT 2
- 4. COMMON 2
- 5. IN 2
- 6. OUT 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 ₃	150	°C
Storage temperature range	T_{stg}	-55 ~ 150	°C

*: Total rating

KSD-R5S008-001

Electrical Characteristics [Tr1,Tr2]

(Ta=25°C)

Characteristic	Symbol	Test Condition	Min.	Тур.	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	200	ı	ı
Output voltage	V _{O(ON)}	I_{O} =10mA, I_{I} =0.5mA	ı	0.1	0.3	٧
Input voltage (ON)	$V_{I(ON)}$	V _O =0.2V, I _O =5mA	ı	2.8	5.0	٧
Input voltage (OFF)	$V_{I(OFF)}$	$V_O=5V$, $I_O=0.1$ mA	1.0	1.2	ı	٧
Transition frequency	f _T *	V _O =10V, I _O =5mA, f=1MHz	-	200	ı	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	ΚΩ

^{* :} Characteristic of transistor only

KSD-R5S008-001 2

Electrical Characteristic Curves

[Tr1, Tr2]

Fig. 1 $I_{\rm O}$ - $V_{I(\rm ON)}$

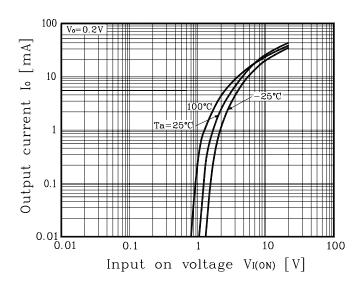


Fig. 2 $I_{\rm O}$ - $V_{\rm I(OFF)}$

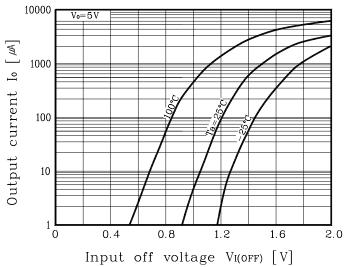
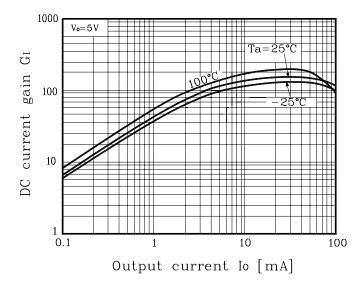


Fig. 3 G_I - I_O

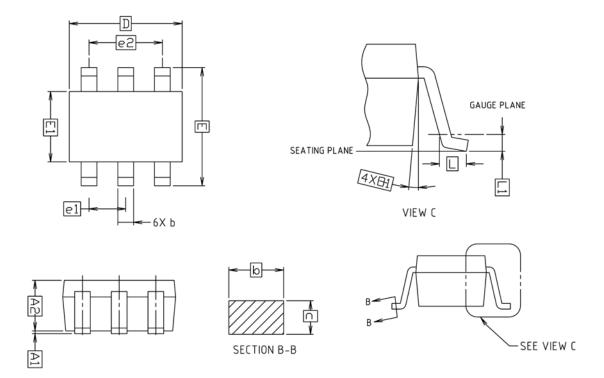


KSD-R5S008-001

3

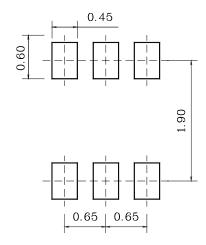
4

Outline Dimension



MILLIMETERS				
SYMBOL	MINIMUM NOMINAL MAXIMUM			NOTE
3 I FIDUL	MINIMUM	NOMINAL	MAXIMUM	
A1	0.00	_	0.10	
A2	0.90	0.95	1.00	
b	0.25	_	0.40	
С	0.10	_	0.25	
D	1.90	2.00	2.10	
Ε	1.95	2.10	2.25	
E1	1.15	1.25	1.35	
e1	0.65 BSC			
e2	1.30 BSC			
L	0.25	_	_	
L1	0.15 BSC			

* Recommend PCB solder land [Unit: mm]



KSD-R5S008-001

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.

KSD-R5S008-001 5