

NPN Silicon Transistor

 \mathbf{R}_1

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 $\leq R_2$

COMMON

 $(Ta=25^{\circ}C)$

OUT

IN

 \mathbf{R}_2

47KΩ

OUT

PIN Connection

COMMON

 \mathbf{R}_1

4.7KΩ

IN

Descriptions

- Switching application
- Interface circuit and driver circuit application

Features

- With built-in bias resistors
- Simplify circuit design
- Reduce a quantity of parts and manufacturing process
- High packing density

Ordering Information

Type NO.	Marking	Package Code	
SRC1206S	<u>RC6</u> □ ① ②	SOT-23	

①Device Code ②Year&Week Code

Absolute Maximum Ratings

Characteristic	Symbol	Rating	Unit
Output voltage	Vo	50	V
Input voltage	VI	20,-5	V
Output current	Ι _ο	100	mA
Power dissipation	P _D	200	mW
Junction temperature	TJ	150	°C
Storage temperature range	T _{stg}	-55 ~ 150	٥C

Electrical Characteristics

Electrical Characteristics					(Ta:	=25°C)
Characteristic	Symbol	Test Condition	Min.	Тур.	Max.	Unit
Output cut-off current	I _{O(OFF)}	$V_0 = 50V, V_1 = 0$	-	-	500	nA
DC current gain	GI	$V_0 = 5V, I_0 = 10mA$	80	200	-	-
Output voltage	V _{O(ON)}	I ₀ =10mA, I ₁ =0.5mA	-	0.1	0.3	V
Input voltage (ON)	V _{I(ON)}	$V_0 = 0.2V$, $I_0 = 5mA$	-	0.9	1.3	V
Input voltage (OFF)	V _{I(OFF)}	$V_0 = 5V$, $I_0 = 0.1mA$	0.5	0.65	-	V
Transition frequency	f _T *	$V_0=10V$, $I_0=5mA$, f=1MHz	-	200	-	MHz
Input current	I ₁	$V_1 = 5V, I_0 = 0$	-	-	1.8	mA
Input resistor (Input to base)	R ₁	-	3.3	4.7	6.1	KΩ
Input resistor (Base to common)	R_2	-	33	47	61	KΩ

* : Characteristic of transistor only

Electrical Characteristic Curves

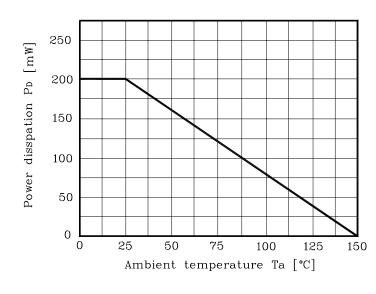


Fig. 1 P_D - Ta

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

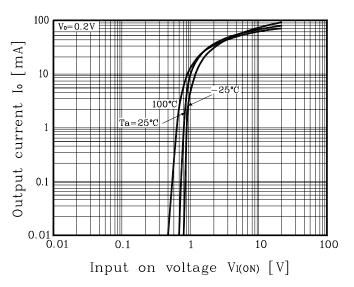


Fig. 3 I_O - V_{I(OFF)}

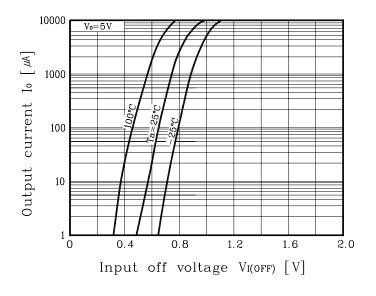
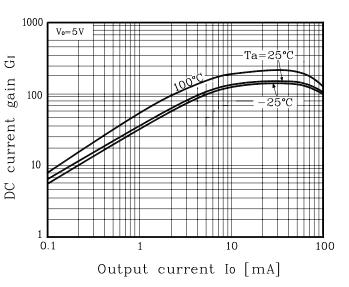
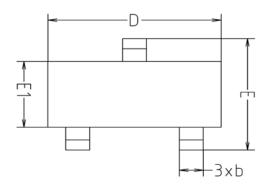
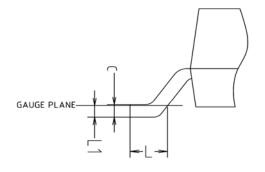


Fig. 4 G_I - I_O

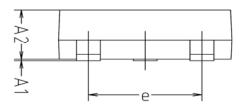


Outline Dimension





DETAIL 'A'

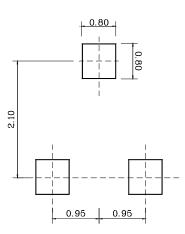




SEE DETAIL 'A'

SYMBOL	MILLIMETERS			NOTE
STRUCE	MINIMUM	NOMINAL	MAXIMUM	NOTE
A1	0.00	-	0.10	
A2	0.82	-	1.02	
Ь	0.39	0.42	0.45	
С	0.09	0.12	0.15	
D	2.80	2.90	3.00	
E	2.20	2.40	2.60	
E1	1.20	1.30	1.40	
e	1.90BSC			
L	0.20	-	-	
L1	0.12BSC			

*Recommend PCB solder land [Unit: mm]



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