

SRC1204U

NPN Silicon Transistor

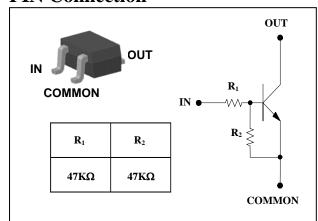
Descriptions

- 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

PIN Connection



Ordering Information

Type NO.	Marking	Package Code	
SRC1204U	<u>R4</u> <u> </u>	SOT-323	

①Device Code ②Year&Week Code

Absolute Maximum Ratings

(Ta=25°C)

Characteristic	Symbol	Rating	Unit
Output voltage	Vo	50	V
Input voltage	VI	40,-10	V
Output current	I _O	100	mA
Power dissipation	P_{D}	200	mW
Junction temperature	TJ	150	°C
Storage temperature	T_{stg}	-55 ~ 150	°C

Electrical Characteristics

(Ta=25°C)

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Output cut-off current	I _{O(OFF)}	$V_0 = 50V, V_1 = 0$	-	-	500	nA
DC current gain	Gı	$V_0=5V$, $I_0=10mA$	80	200	-	-
Output voltage	$V_{O(ON)}$	$I_0 = 10 \text{mA}, I_1 = 0.5 \text{mA}$	-	0.1	0.3	V
Input voltage (ON)	V _{I(ON)}	$V_0 = 0.2V$, $I_0 = 5mA$	-	2.8	5.0	V
Input voltage (OFF)	V _{I(OFF)}	$V_0 = 5V$, $I_0 = 0.1 \text{mA}$	1.0	1.2	-	V
Transition frequency	$f_{T}^{}^{X}}$	$V_O=10V$, $I_O=5$ mA, $f=1$ MHz	-	200	-	MHz
Input current	I_1	$V_1 = 5V, I_0 = 0$	-	ı	0.18	mA
Input resistor (Input to base)	R ₁	-	33	47	61	ΚΩ
Input resistor (Base to common)	R ₂	-	33	47	61	ΚΩ

^{* :} Characteristic of transistor only

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Electrical Characteristic Curves

Fig. 1 P_D - Ta

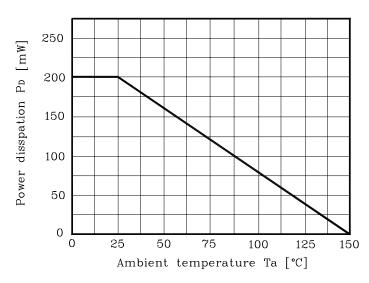


Fig. 2 I_O - $V_{I(ON)}$

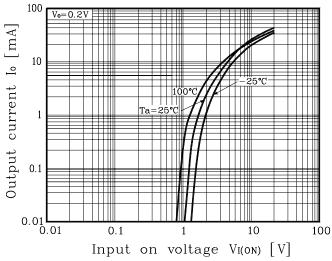


Fig. 3 $I_{\rm O}$ - $V_{\rm I(OFF)}$

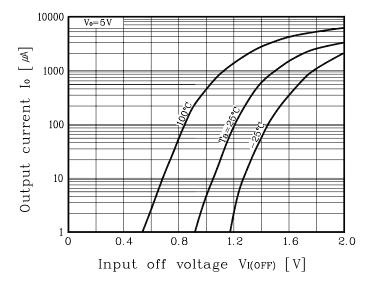
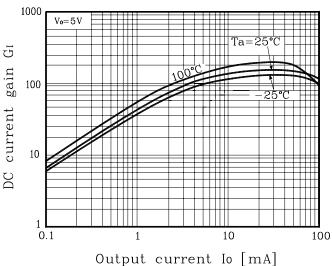
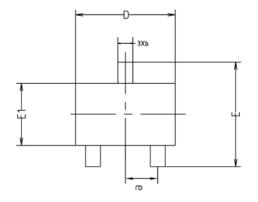
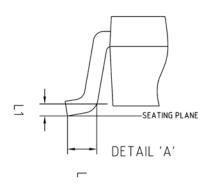


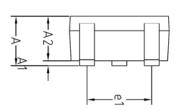
Fig. 4 G_I - I_O

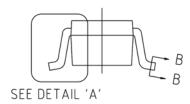


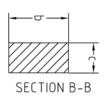
Outline Dimension





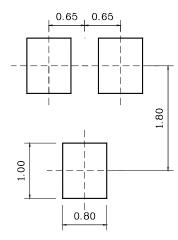






SYMBOL	MILLIMETERS			NOTE
3 THEOL	MINIMUM	NOMINAL	MAXIMUM	NUTE
Α	0.90	-	1.25	
A1	0.00	-	0.10	
A2	0.85	0.90	0.95	
Ь	0.30	-	0.40	
С	0.10	-	0.25	
D	1.90	2.00	2.10	
Ε	1.95	2.10	2.25	
E1	1.15	1.25	1.35	
е	0.65BSC			
e1	1.20	-	1.40	
L	0.10	-	-	
11		0.12BS	(

*Recommend PCB solder land [Unit: mm]



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