

# **SRC1206**

**NPN Silicon Transistor** 

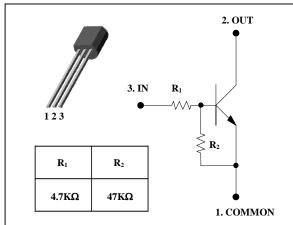
#### **Descriptions**

- 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	
SRC1206	SRC1206	TO-92	

### **Absolute Maximum Ratings**

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

Characteristic	Symbol	Rating	Unit
Output voltage	V <sub>O</sub>	50	V
Input voltage	V <sub>I</sub>	20,-5	V
Output current	Io	100	mA
Power dissipation	$P_{D}$	625	mW
Junction temperature	TJ	150	°C
Storage temperature range	$T_{stg}$	-55 ~ 150	°C

#### **Electrical Characteristics**

(Ta=25°C)

Characteristic	Symbol	Test Condition	Min.	Тур.	Max.	Unit
Output cut-off current	I <sub>O(OFF)</sub>	$V_0 = 50V, V_1 = 0$	-	ı	500	nA
DC current gain	Gı	$V_O=5V$ , $I_O=10mA$	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 <sub>I(ON)</sub>	$V_0 = 0.2V$ , $I_0 = 5mA$	-	0.9	1.3	V
Input voltage (OFF)	$V_{I(OFF)}$	$V_0 = 5V$ , $I_0 = 0.1 \text{mA}$	0.5	0.65	-	V
Transition frequency	$f_T^*$	$V_O=10V$ , $I_O=5$ mA, $f=1$ MHz	-	200	-	MHz
Input current	$I_1$	$V_1 = 5V, I_0 = 0$	-	1	1.8	mA
Input resistor (Input to base)	R <sub>1</sub>	-	3.3	4.7	6.1	KΩ
Input resistor (Base to common)	R <sub>2</sub>	-	33	47	61	ΚΩ

<sup>\* :</sup> Characteristic of transistor only

### **Electrical Characteristic Curves**

Fig. 1 P<sub>D</sub> - Ta

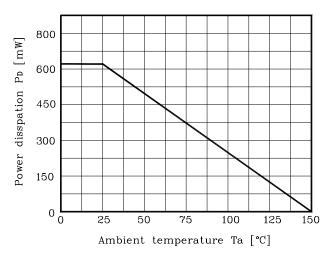


Fig. 2  $I_O$  -  $V_{I(ON)}$ 

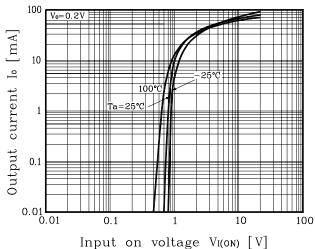


Fig. 3  $I_{\rm O}$  -  $V_{I(OFF)}$ 

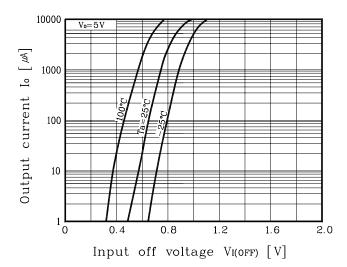
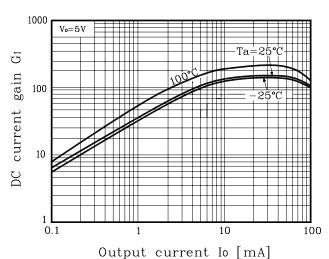
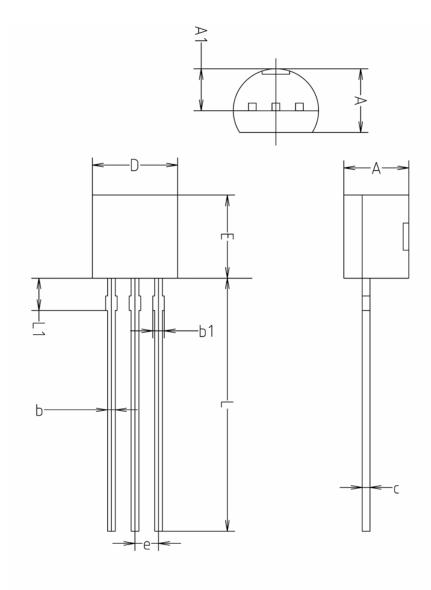


Fig. 4 G<sub>I</sub> - I<sub>O</sub>



## **Outline Dimension**



C.V.M.D.O.I	MILLMETERS(mm)				
SYMBOL	MINIMUM	NOMINAL	MAXIMUM		
Α	3.40	3.50	3.66		
A1	2.46	2.51	2.59		
р	0.39	0.44	0.53		
b1	0.39	_	0.63		
С	0.35	0.42	0.47		
D	4.48	4.60	4.70		
Ε	4.48	4.60	4.70		
е	1.17	1.27	1.37		
L	13.70	14.00	14.77		
L1	1.55	1.70	2.15		

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