

SRC1201

NPN Silicon Transistor

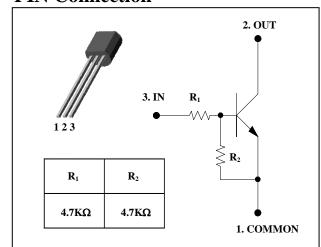
Descriptions

- 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	
SRC1201	SRC1201	TO-92	

Absolute Maximum Ratings

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

Characteristic	Symbol	Rating	Unit
Output voltage	Vo	50	V
Input voltage	V_{I}	20, -10	V
Output current	Io	100	m A
Power dissipation	P_D	625	m W
Junction temperature	T_J	150	°C
Storage temperature range	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)}	$V_0 = 50 \text{ V}, \ V_1 = 0$	-	-	500	nA
DC current gain	Gı	$V_0 = 5V$, $I_0 = 10 \text{ m A}$	30	55	-	-
Output voltage	$V_{O(ON)}$	$I_{O} = 10 \text{ mA}, I_{I} = 0.5 \text{ mA}$	-	0.1	0.3	V
Input voltage (ON)	$V_{I(ON)}$	$V_0 = 0.2V$, $I_0 = 5 \text{ m A}$	-	1.5	2.0	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 *	$V_{O}=10V, I_{O}=5mA, f=1MHz$	-	200	-	MHz
Input current	I_1	$V_1 = 5V, I_0 = 0$	-	-	1.8	m A
Input resistor (Input to base)	R ₁	-	3.3	4.7	6.1	K Ω
Input resistor (Base to common)	R ₂	-	3.3	4.7	6.1	K Ω

^{* :} Characteristic of transistor only

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Electrical Characteristic Curves

Fig. 1 P_D - Ta

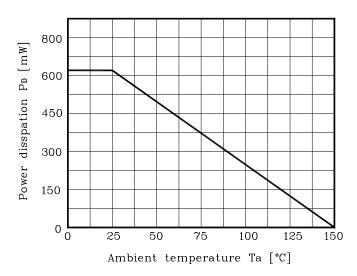


Fig. 3 I_O - $V_{I(OFF)}$

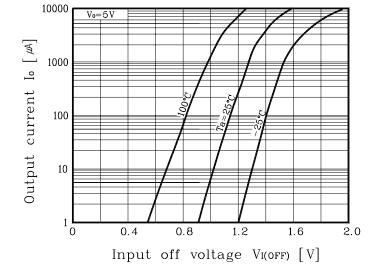


Fig. 2 $I_{\rm O}$ - $V_{\rm I(ON)}$

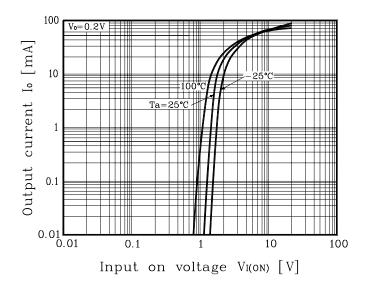
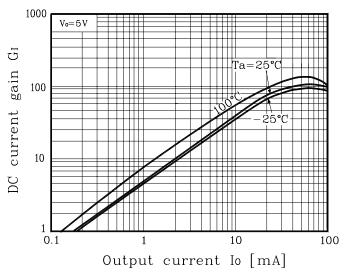
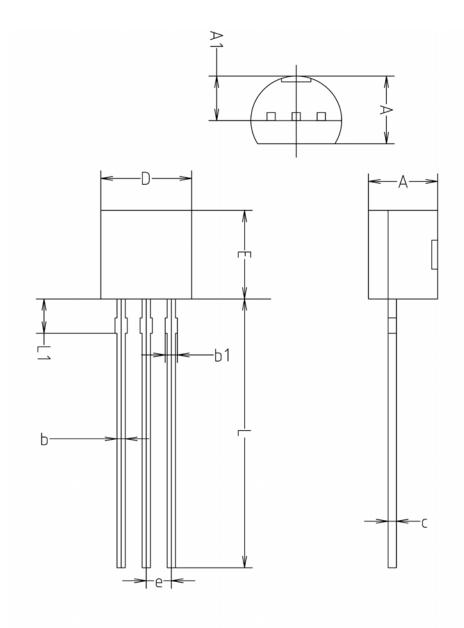


Fig. 4 G_I - I_O



Outline Dimension



6144661	MILLMETERS(mm)			
SYMBOL	MINIMUM	NOMINAL	MAXIMUM	
Α	3.40	3.50	3.66	
A1	2.46	2.51	2.59	
b	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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