

SRC1203

NPN Silicon Transistor

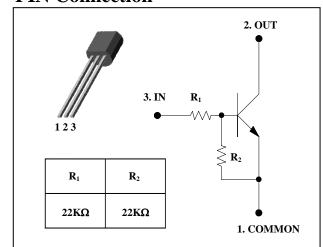
Descriptions

- 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	
SRC1203	SRC1203	TO-92	

Absolute Maximum Ratings

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

Characteristic	Symbol	Rating	Unit
Output voltage	Vo	50	V
Input voltage	Vı	40,-10	V
Output current	I _O	100	mA
Power dissipation	P_{D}	625	mW
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)}	$V_0 = 50V, V_1 = 0$	-	-	500	nA
DC current gain	Gı	$V_O=5V$, $I_O=10mA$	70	120	-	-
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)}	$V_0 = 0.2V$, $I_0 = 5mA$	-	2.1	3.0	V
Input voltage (OFF)	$V_{I(OFF)}$	$V_0 = 5V$, $I_0 = 0.1 \text{mA}$	1.0	1.2	-	V
Transition frequency	$f_{T}^{}^{\star}}$	$V_O=10V$, $I_O=5mA$, $f=1MHz$	-	200	-	MHz
Input current	I_1	$V_1 = 5V, I_0 = 0$	-	ı	0.36	mA
Input resistor (Input to base)	R ₁	-	15.4	22	28.6	KΩ
Input resistor (Base to common)	R ₂	-	15.4	22	28.6	KΩ

^{* :} Characteristic of transistor only

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Electrical Characteristic Curves

Fig. 1 P_D - Ta

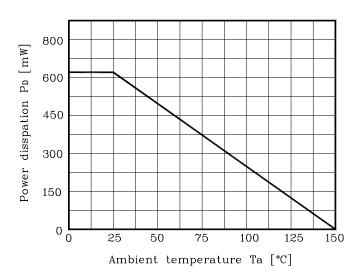


Fig. 2 I_{O} - $V_{I(ON)}$

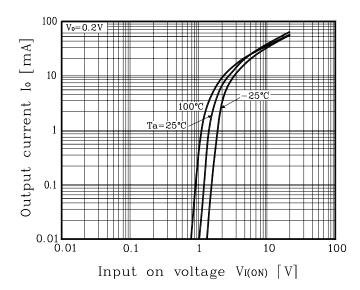


Fig. 3 $I_{\rm O}$ - $V_{I(OFF)}$

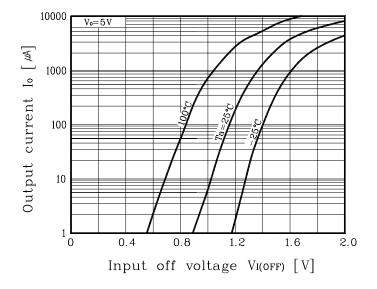
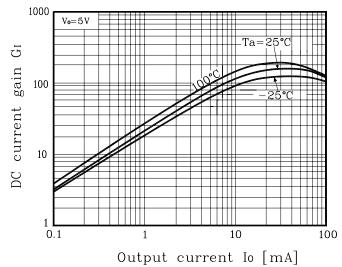


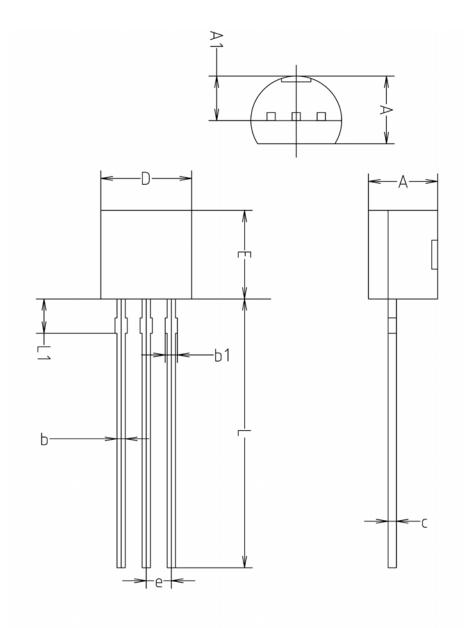
Fig. 4 G_I - I_O



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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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