

## Descriptions

- Switching application
- Interface circuit and driver circuit application

## Features

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

## Ordering Information

Type NO.	Marking	Package Code
SRC1212	SRC1212	TO-92

## Absolute Maximum Ratings

(Ta=25°C)

Characteristic	Symbol	Rating	Unit
Output voltage	V <sub>O</sub>	50	V
Input voltage	V <sub>I</sub>	40, -5	V
Output current	I <sub>O</sub>	100	mA
Power dissipation	P <sub>D</sub>	625	mW
Junction temperature	T <sub>J</sub>	150	°C
Storage temperature range	T <sub>stg</sub>	-55 ~ 150	°C

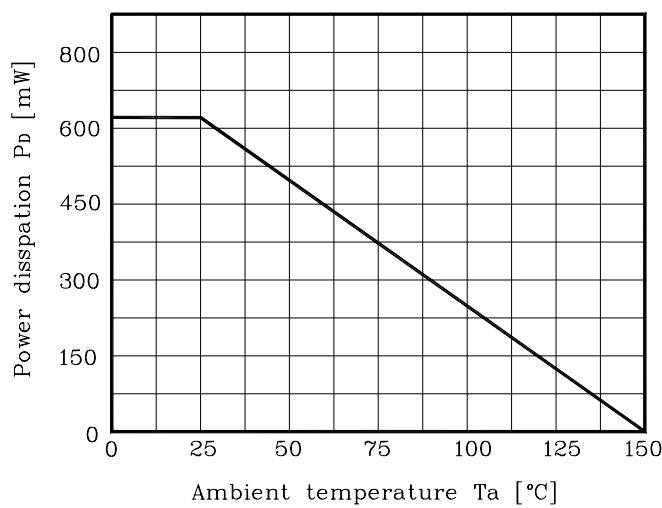
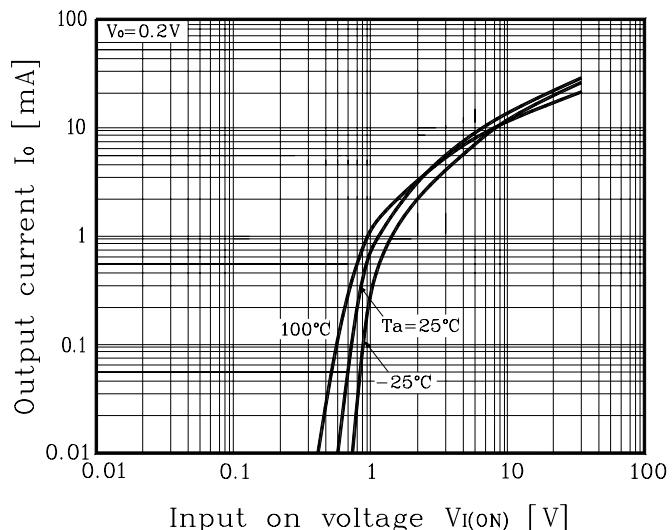
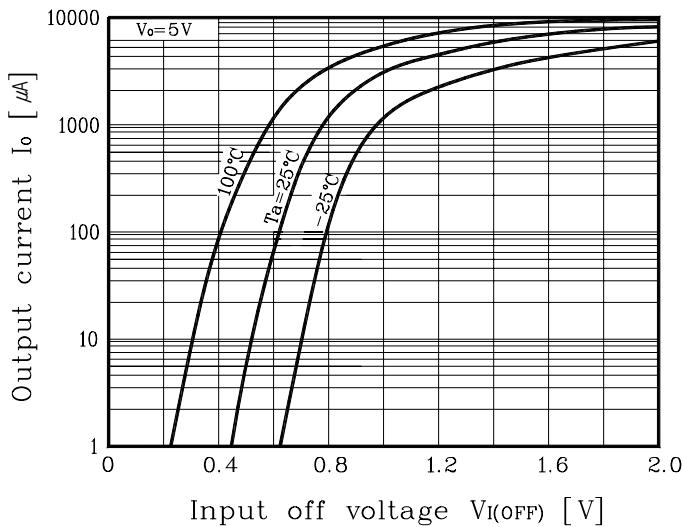
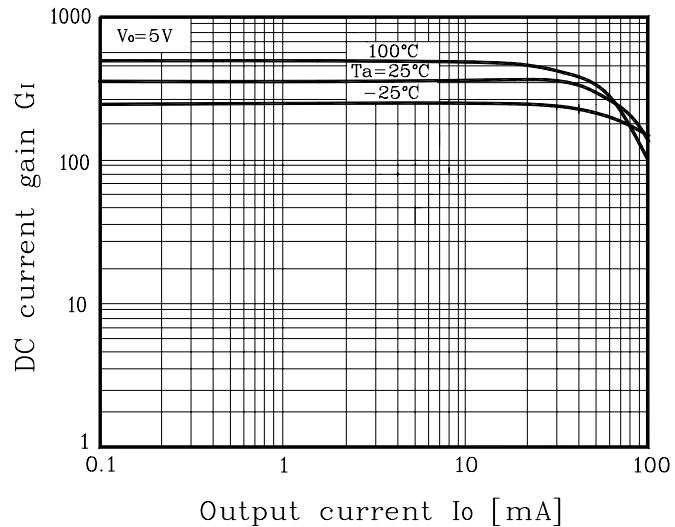
## Electrical Characteristics

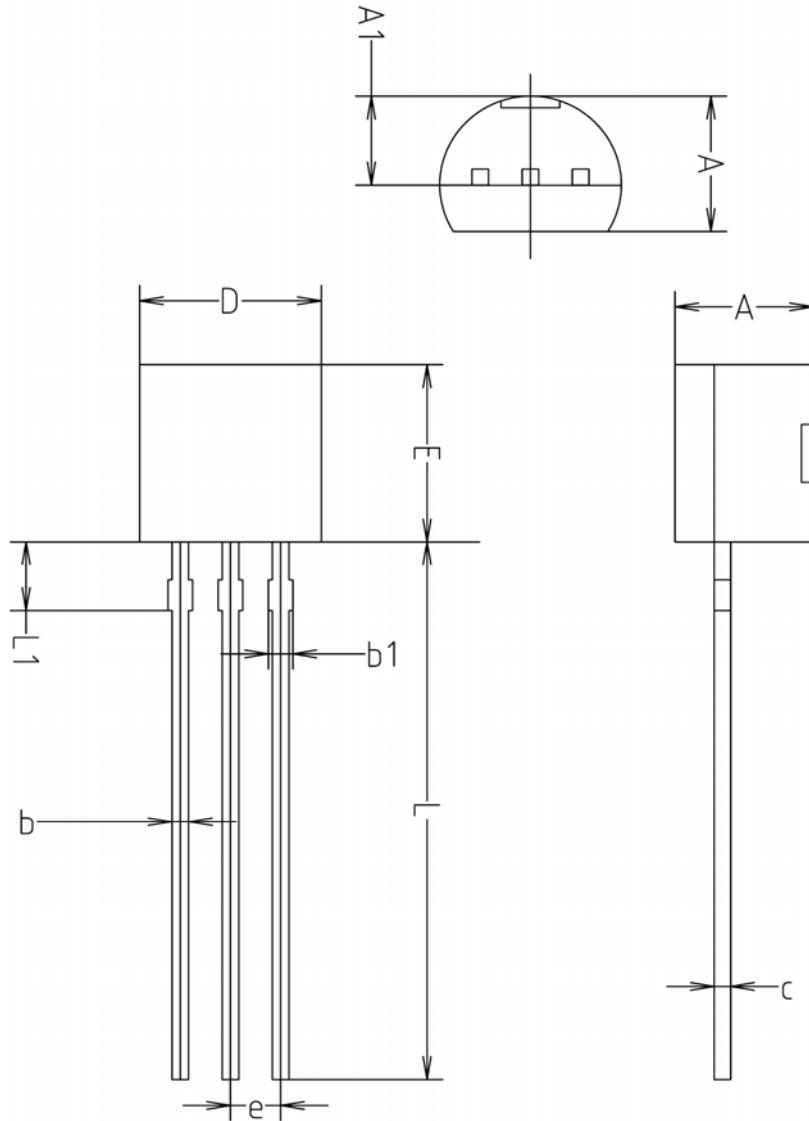
(Ta=25°C)

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Output cut-off current	I <sub>O(OFF)</sub>	V <sub>O</sub> =50V, V <sub>I</sub> =0	-	-	500	nA
DC current gain	G <sub>I</sub>	V <sub>O</sub> =5V, I <sub>O</sub> =10mA	120	-	-	-
Output voltage	V <sub>O(ON)</sub>	I <sub>O</sub> =10mA, I <sub>I</sub> =0.5mA	-	0.1	0.3	V
Input voltage (ON)	V <sub>I(ON)</sub>	V <sub>O</sub> =0.2V, I <sub>O</sub> =5mA	-	-	4.4	V
Input voltage (OFF)	V <sub>I(OFF)</sub>	V <sub>O</sub> =5V, I <sub>O</sub> =0.1mA	0.3	-	-	V
Transition frequency	f <sub>T</sub> <sup>*</sup>	V <sub>O</sub> =10V, I <sub>O</sub> =5mA, f=1MHz	-	200	-	MHz
Input current	I <sub>I</sub>	V <sub>I</sub> =5V, I <sub>O</sub> =0	-	-	0.1	mA
Input resistor (Input to base)	R <sub>I</sub>	-	70	100	130	kΩ

\* : Characteristic of transistor only

## Electrical Characteristic Curves

**Fig. 1  $P_D$  -  $T_a$** **Fig. 2  $I_O$  -  $V_{I(ON)}$** **Fig. 3  $I_O$  -  $V_{I(OFF)}$** **Fig. 4  $G_I$  -  $I_O$** 

**Outline Dimension**

SYMBOL	MILLIMETERS(mm)		
	MINIMUM	NOMINAL	MAXIMUM
A	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
c	0.35	0.42	0.47
D	4.48	4.60	4.70
E	4.48	4.60	4.70
e	1.17	1.27	1.37
L	13.70	14.00	14.77
L1	1.55	1.70	2.15

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