

## Descriptions

- Switching application
- Interface circuit and driver circuit application

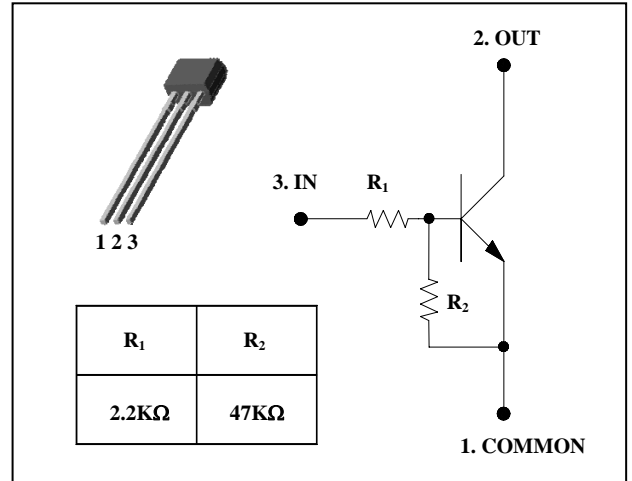
## Features

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

## Ordering Information

Type NO.	Marking	Package Code
SRC1205M	1205	TO-92M

## PIN Connection



## Absolute Maximum Ratings

(Ta=25°C)

Characteristic	Symbol	Rating	Unit
Output voltage	V <sub>O</sub>	50	V
Input voltage	V <sub>I</sub>	15, -5	V
Output current	I <sub>O</sub>	100	mA
Power dissipation	P <sub>D</sub>	400	mW
Junction temperature	T <sub>J</sub>	150	°C
Storage temperature range	T <sub>stg</sub>	-55 ~ 150	°C

## Electrical Characteristics

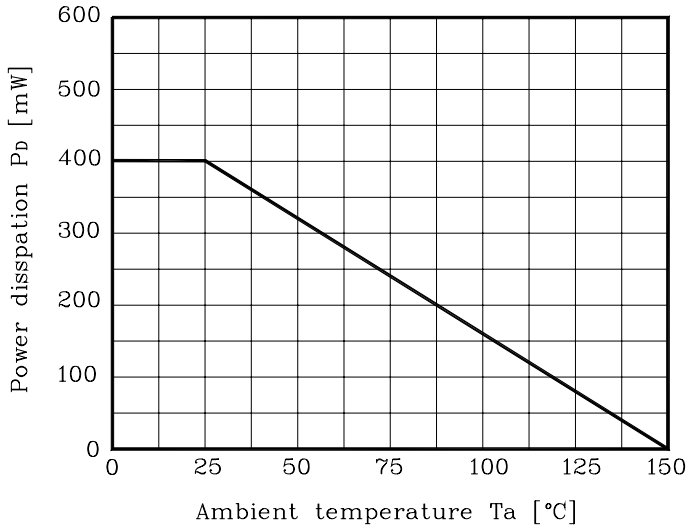
(Ta=25°C)

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	80	200	-	-
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	-	-	1.1	V
Input voltage (OFF)	V <sub>I(OFF)</sub>	V <sub>O</sub> =5V, I <sub>O</sub> =0.1mA	0.5	-	-	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	-	-	3.6	mA
Input resistor (Input to base)	R <sub>1</sub>	-	1.54	2.2	2.86	KΩ
Input resistor (Base to common)	R <sub>2</sub>	-	33	47	61	KΩ

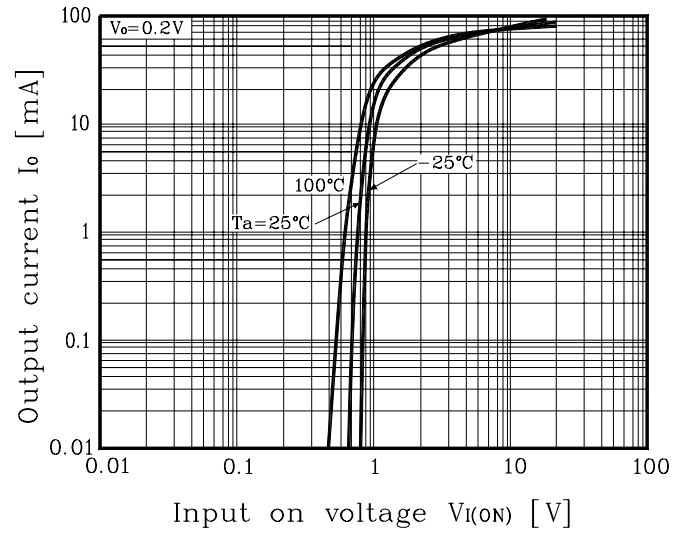
\* : Characteristic of transistor only

## Electrical Characteristic Curves

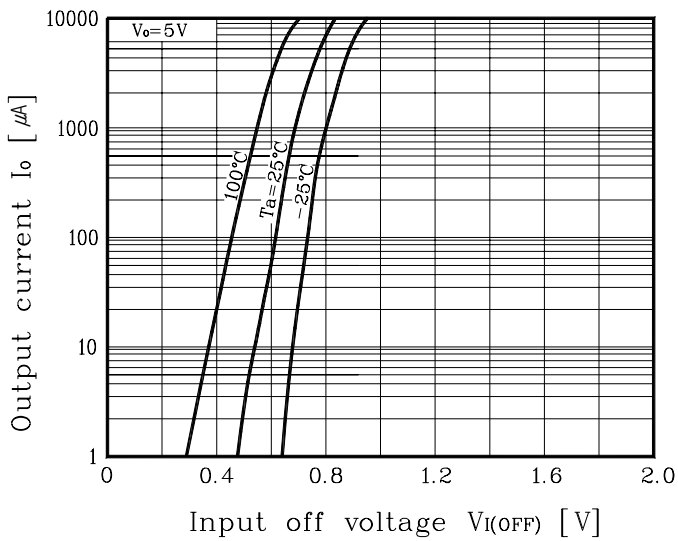
**Fig. 1  $P_D - T_a$**



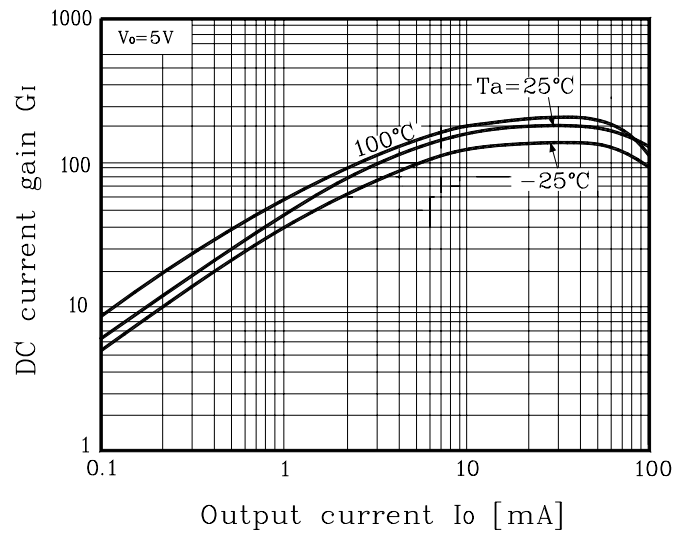
**Fig. 2  $I_O - V_{I(ON)}$**



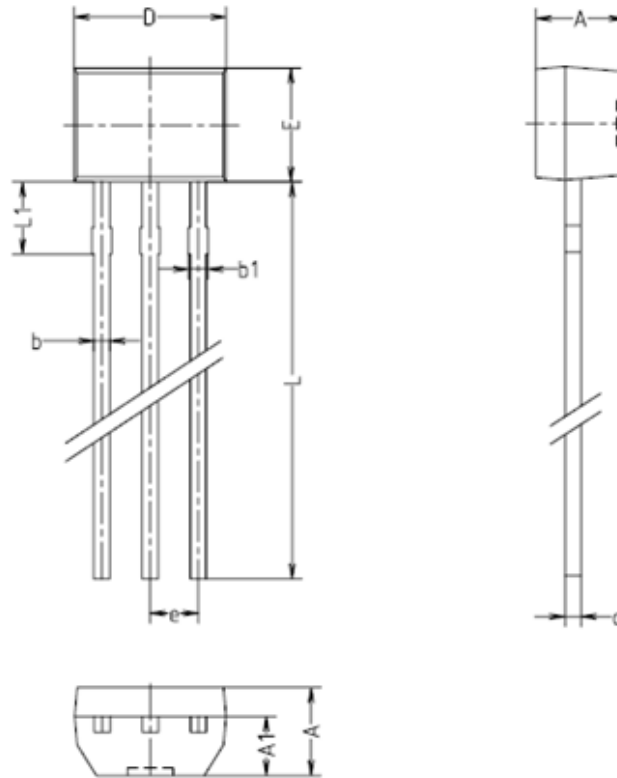
**Fig. 3  $I_O - V_{I(OFF)}$**



**Fig. 4  $G_I - I_O$**



## Outline Dimension



SYMBOL	TQ-92M		
	MINIMUM	NOMINAL	MAXIMUM
A	2.25	2.30	2.35
A1	1.50	1.55	1.60
b	0.40	0.42	0.44
b1	0.40	-	0.50
c	0.40	0.42	0.44
D	3.93	4.00	4.07
E	2.93	3.00	3.07
e	1.17	1.27	1.37
L	14.30	14.50	14.70
L1	2.05	2.15	2.25

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