

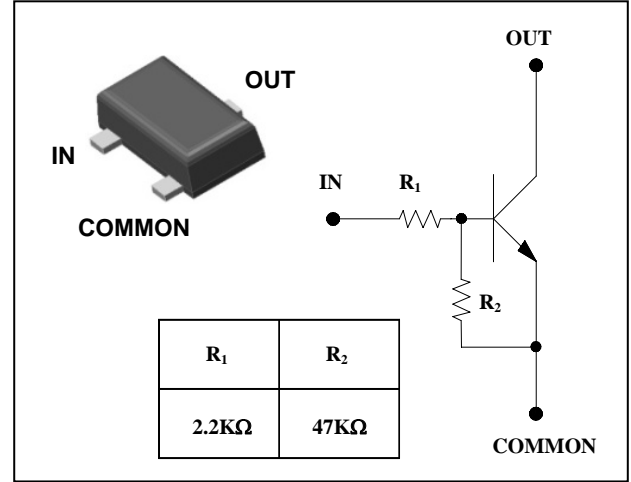
Descriptions

- 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
SRC1205SF	RC5  ① ②	SOT-23F

① Device Code ② Year&Week Code

Absolute Maximum Ratings

(Ta=25°C)

Characteristic	Symbol	Rating	Unit
Output voltage	V _O	50	V
Input voltage	V _I	15, -5	V
Output current	I _O	100	mA
Power dissipation	P _D	200	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 _O = 50V, V _I = 0	-	-	500	nA
DC current gain	G _I	V _O = 5V, I _O = 10mA	80	200	-	-
Output voltage	V _{O(ON)}	I _O = 10mA, I _I = 0.5mA	-	0.1	0.3	V
Input voltage (ON)	V _{I(ON)}	V _O = 0.2V, I _O = 5mA	-	-	1.1	V
Input voltage (OFF)	V _{I(OFF)}	V _O = 5V, I _O = 0.1mA	0.5	-	-	V
Transition frequency	f _T *	V _O = 10V, I _O = 5mA, f= 1MHz	-	200	-	MHz
Input current	I _I	V _I = 5V, I _O = 0	-	-	3.6	mA
Input resistor (Input to base)	R ₁	-	1.54	2.2	2.86	KΩ
Input resistor (Base to common)	R ₂	-	33	47	61	KΩ

* : Characteristic of transistor only

Electrical Characteristic Curves

Fig. 1 $P_D - T_a$

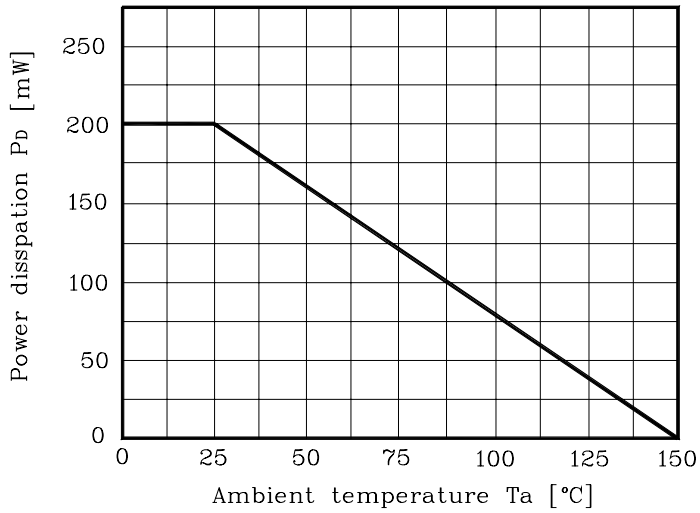


Fig. 2 $I_O - V_{I(ON)}$

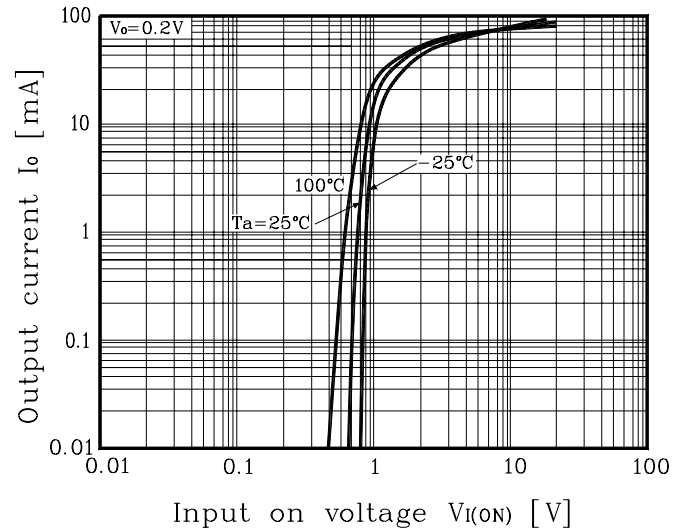


Fig. 3 $I_O - V_{I(OFF)}$

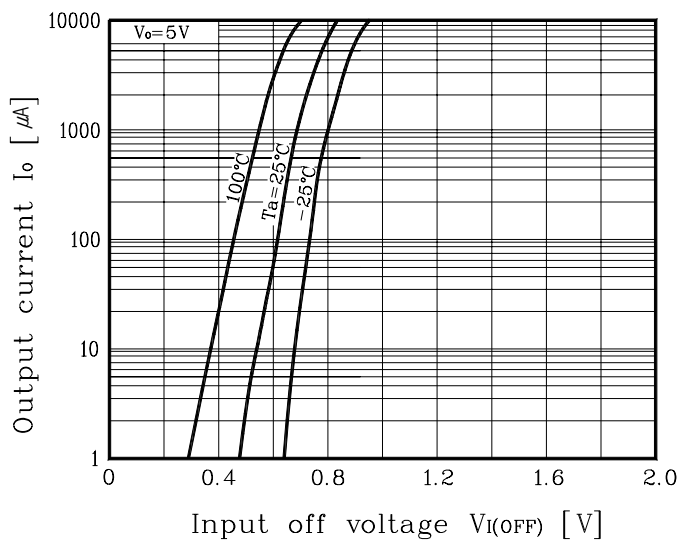
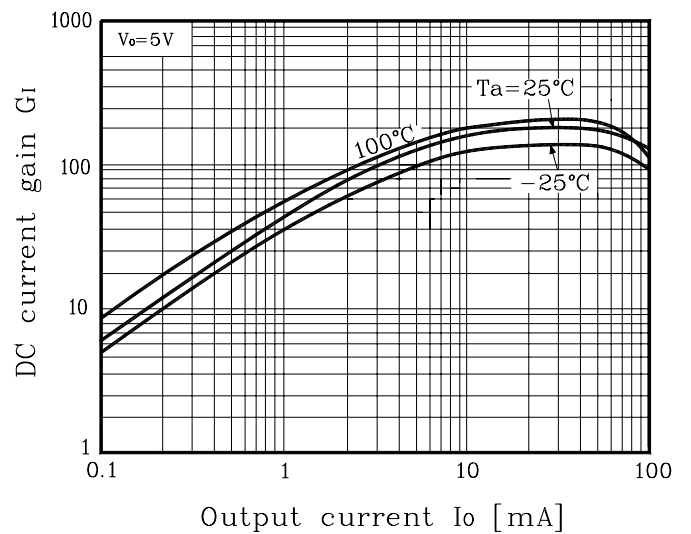
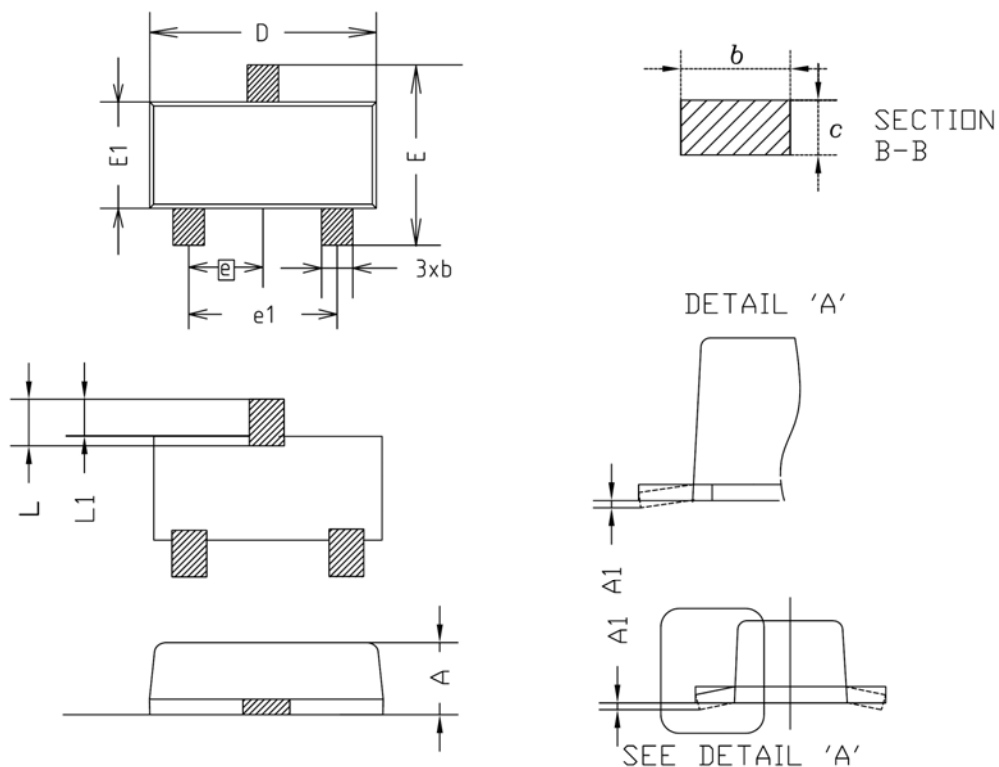


Fig. 4 $G_I - I_O$

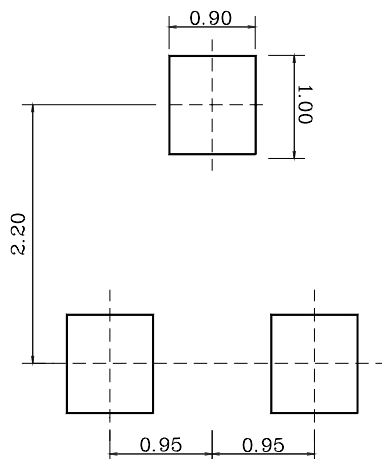


Outline Dimension



SYMBOL	MILLIMETER(mm)			NOTE
	MINIMUM	NOMINAL	MAXIMUM	
A	0.80	0.90	1.00	
A1	0.00	-	0.10	
b	0.35	0.40	0.45	
c	0.10	0.15	0.20	
D	2.80	2.90	3.00	
E	2.30	2.40	2.50	
E1	1.50	1.60	1.70	
e	0.95BSC			
e1	1.80	1.90	2.00	
L	0.48	0.58	0.68	
L1	0.30	-	0.50	

※Recommend PCB solder land [Unit: mm]



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