

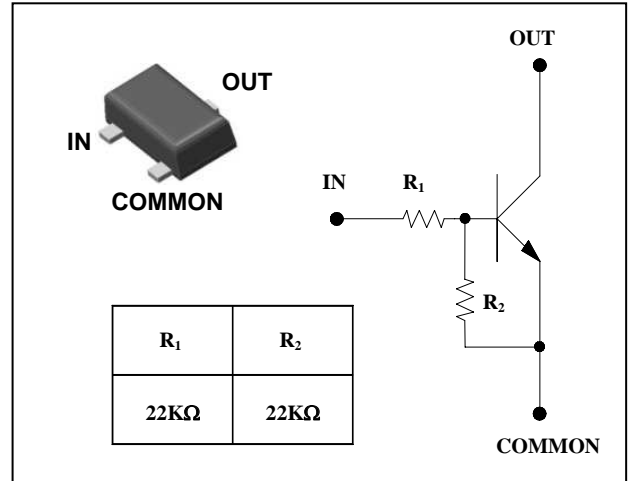
Descriptions

- 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
SRC1203EF	R3 □ ① ②	SOT-523F

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	40, -10	V
Output current	I _O	100	mA
Power dissipation	P _D	150	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	70	120	-	-
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	-	2.1	3.0	V
Input voltage (OFF)	V _{I(OFF)}	V _O = 5V, I _O = 0.1mA	1.0	1.2	-	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	-	-	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

Electrical Characteristic Curves

Fig. 1 $P_D - T_a$

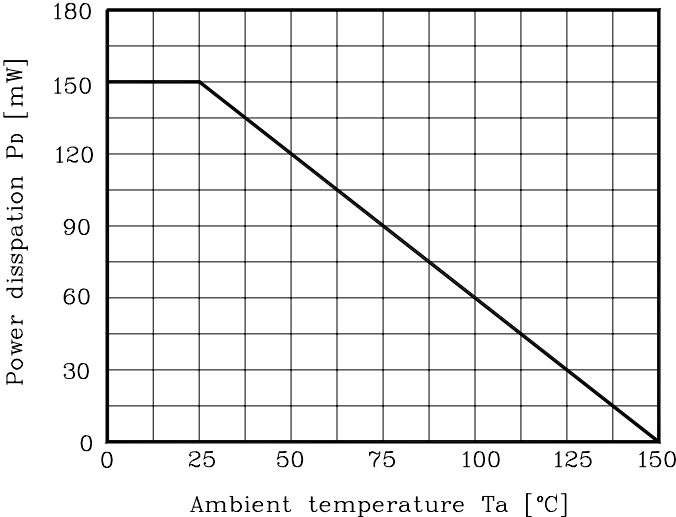


Fig. 2 $I_O - V_{I(ON)}$

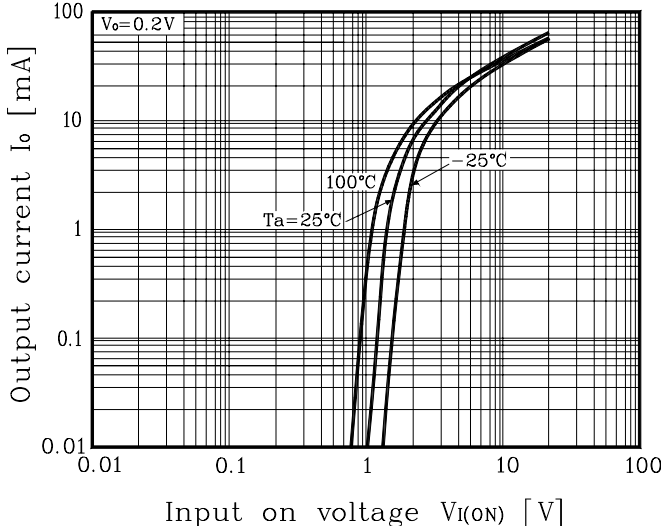


Fig. 3 $I_O - V_{I(OFF)}$

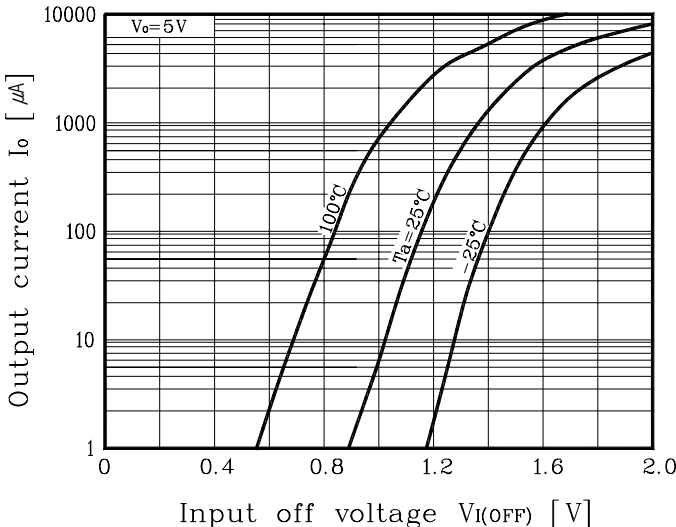
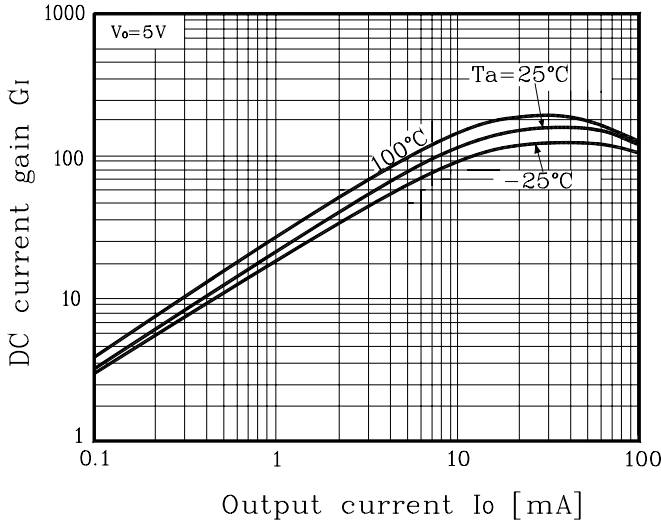
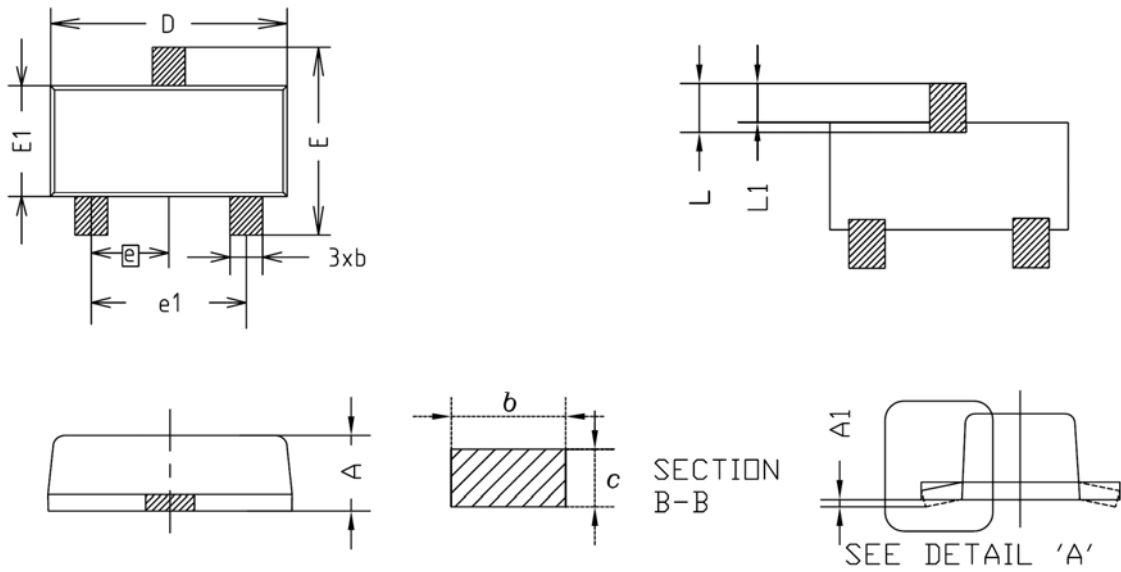


Fig. 4 $G_I - I_O$

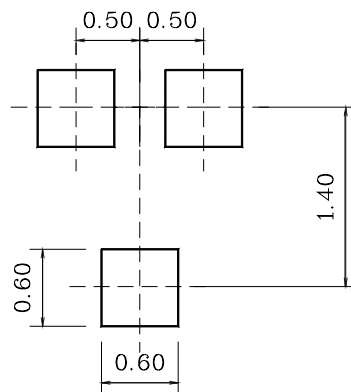


Outline Dimension



SYMBOL	MILLIMETERS			NOTE
	MINIMUM	NOMINAL	MAXIMUM	
A	0.63	0.68	0.73	
A1	0.00	-	0.10	
A2	-	-	-	
b	0.25	0.30	0.35	
c	0.04	0.11	0.20	
D	1.50	1.60	1.70	
E	1.50	1.60	1.70	
E1	0.78	0.88	0.98	
e	0.50BSC			
e1	0.90	-	1.10	
L	0.34	0.44	0.54	
L1	0.28	0.34	0.43	

※Recommend PCB solder land [Unit: mm]



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