

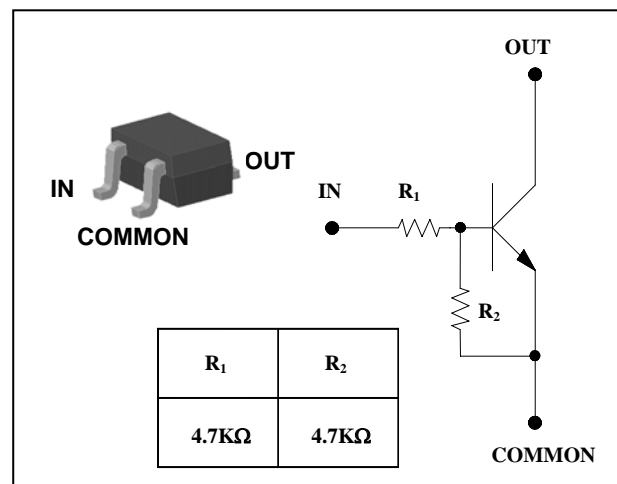
Descriptions

- 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
SRC1201U	<div> <div>R1</div> <div> <div>①</div> <div>②</div> </div> </div>	SOT-323
①Device Code ②Year&Week Code		

Absolute Maximum Ratings

(Ta=25°C)

Characteristic	Symbol	Rating	Unit
Output voltage	V_O	50	V
Input voltage	V_I	20, -10	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	$V_O = 5V, I_O = 10mA$	30	55	-	-
Output voltage	$V_{O(ON)}$	$I_O = 10mA, I_I = 0.5mA$	-	0.1	0.3	V
Input voltage (ON)	$V_{I(ON)}$	$V_O = 0.2V, I_O = 5mA$	-	1.5	2.0	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	$V_I = 5V, I_O = 0$	-	-	1.8	mA
Input resistor (Input to base)	R_1	-	3.3	4.7	6.1	K Ω
Input resistor (Base to common)	R_2	-	3.3	4.7	6.1	K Ω

*: Characteristic of transistor only

Electrical Characteristic Curves

Fig. 1 P_D - T_a

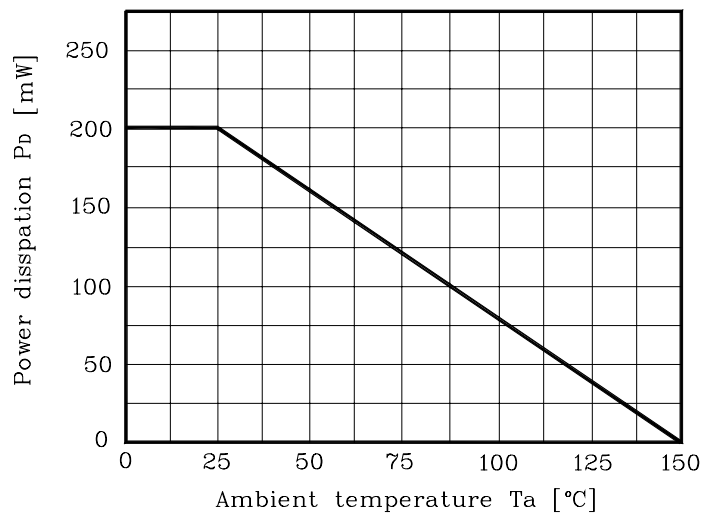


Fig. 2 I_O - $V_{I(ON)}$

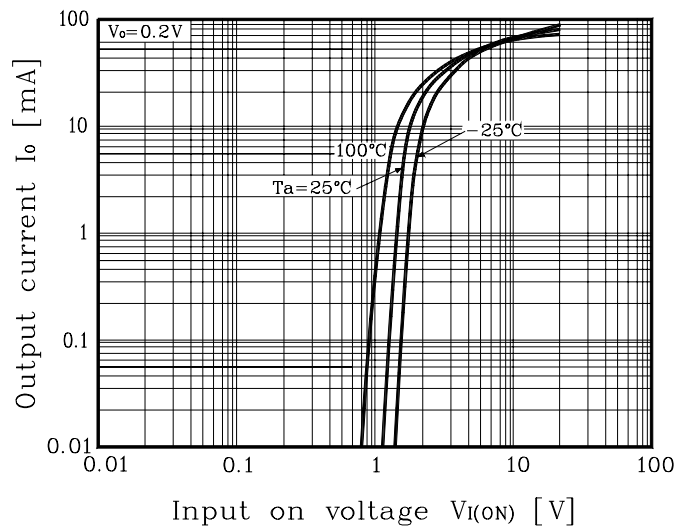


Fig. 3 I_O - $V_{I(OFF)}$

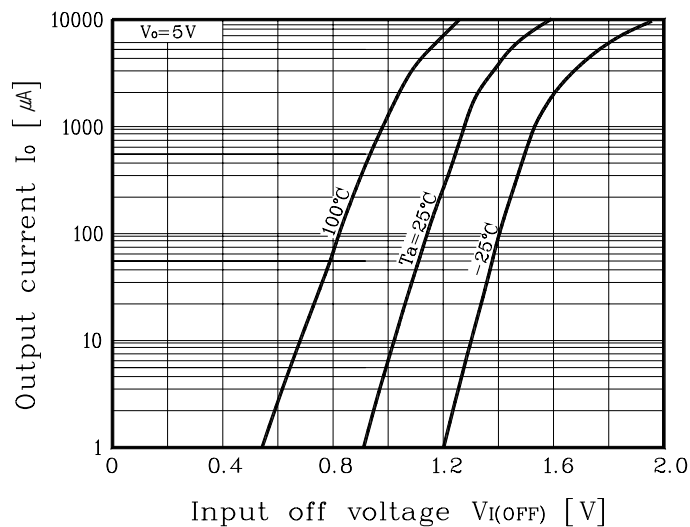
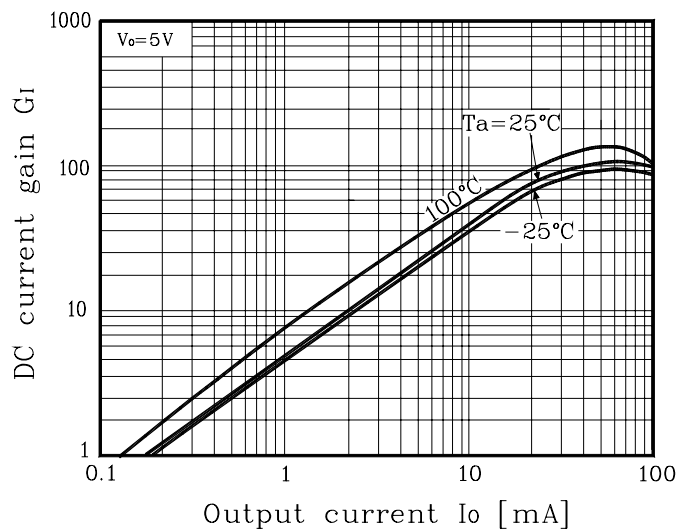
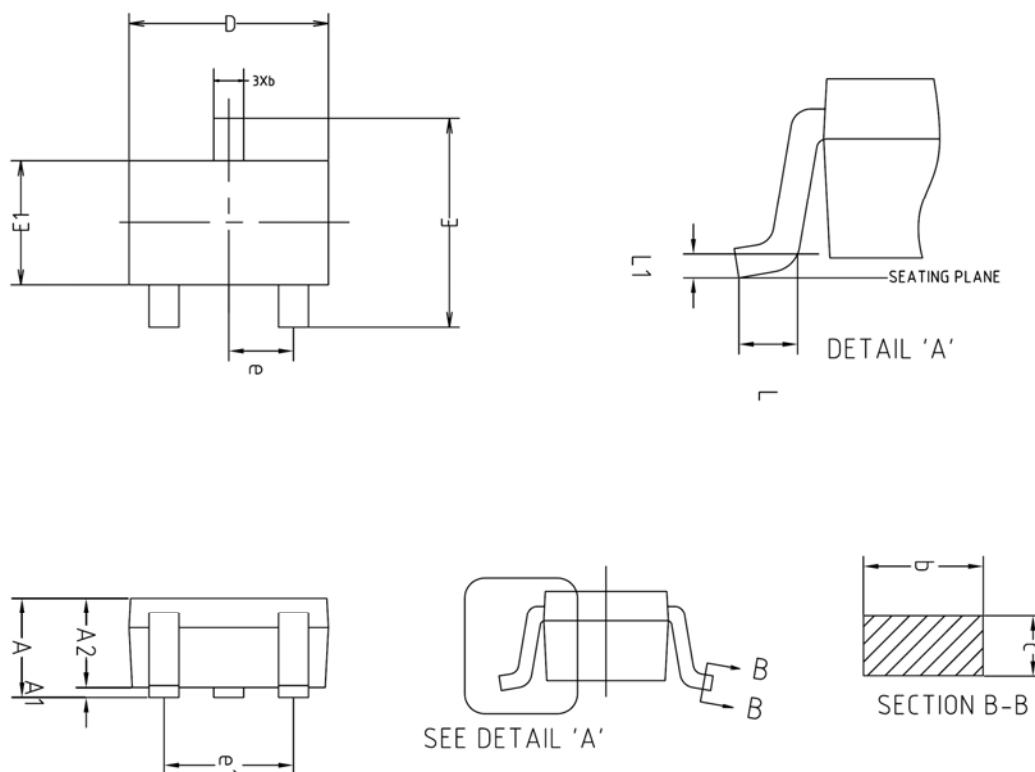


Fig. 4 G_I - I_O

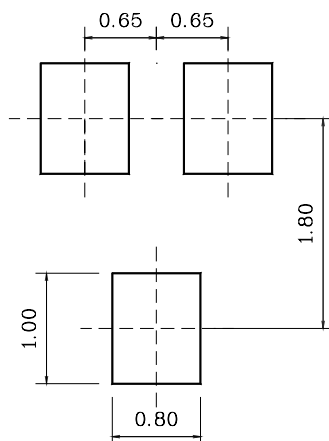


Outline Dimension



SYMBOL	MILLIMETERS			NOTE
	MINIMUM	NOMINAL	MAXIMUM	
A	0.90	-	1.25	
A1	0.00	-	0.10	
A2	0.85	0.90	0.95	
b	0.30	-	0.40	
c	0.10	-	0.25	
D	1.90	2.00	2.10	
E	1.95	2.10	2.25	
E1	1.15	1.25	1.35	
e	0.65BSC			
e1	1.20	-	1.40	
L	0.10	-	-	
L1	0.12BSC			

※Recommend PCB solder land [Unit: mm]



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