KODENSHI AUK

SRC1204E

NPN Silicon Transistor

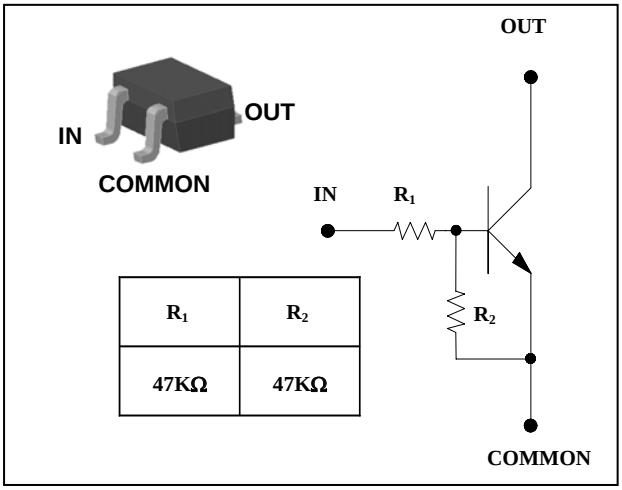
Descriptions

- 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



R_1	R_2
47KΩ	47KΩ

Ordering Information

Type NO.	Marking	Package Code
SRC1204E	R4 □ (① ②)	SOT-523

①Device 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	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	-	2.8	5.0	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	-	-	0.18	mA
Input resistor (Input to base)	R_1	-	33	47	61	KΩ
Input resistor (Base to common)	R_2	-	33	47	61	KΩ

* : Characteristic of transistor only

Electrical Characteristic Curves

Fig. 1 P_D - Ta

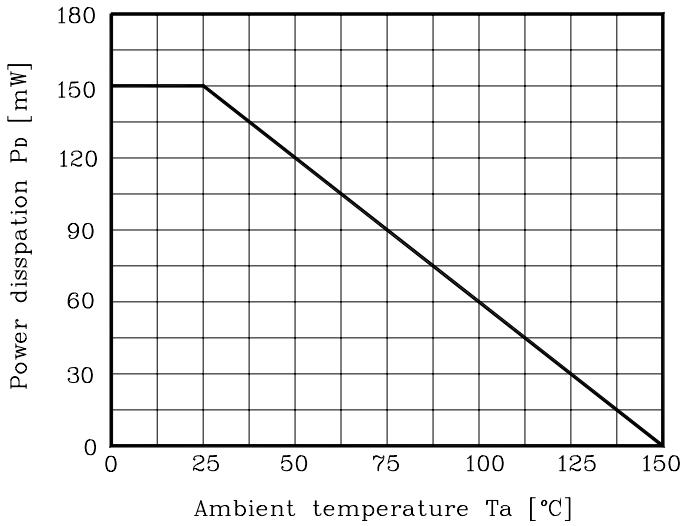


Fig. 2 I_O - $V_{I(ON)}$

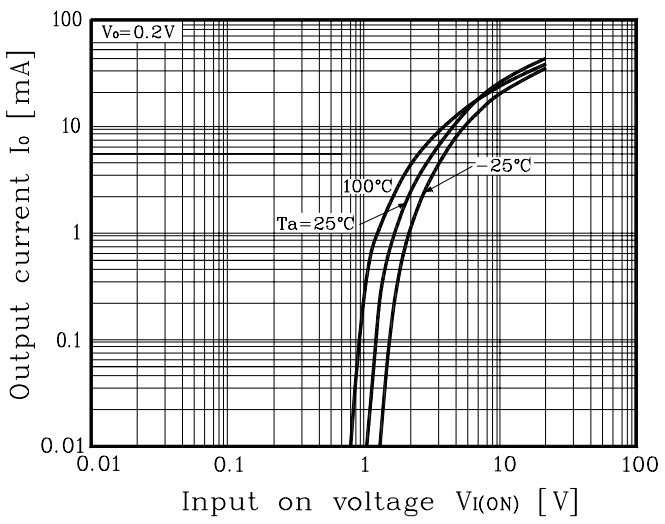


Fig. 3 I_O - $V_{I(OFF)}$

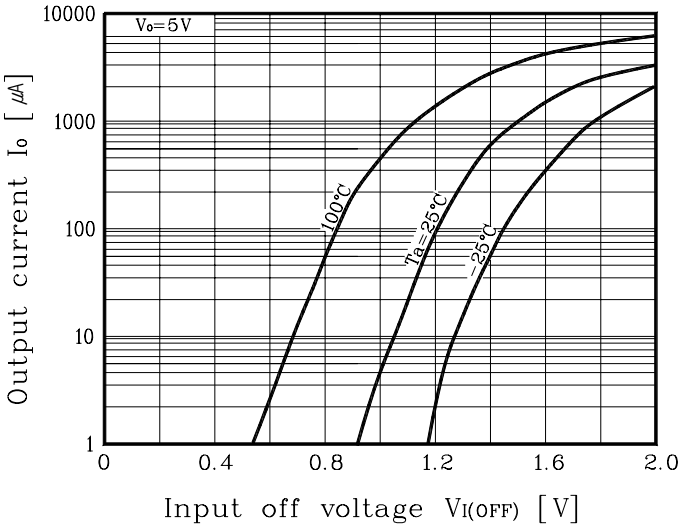
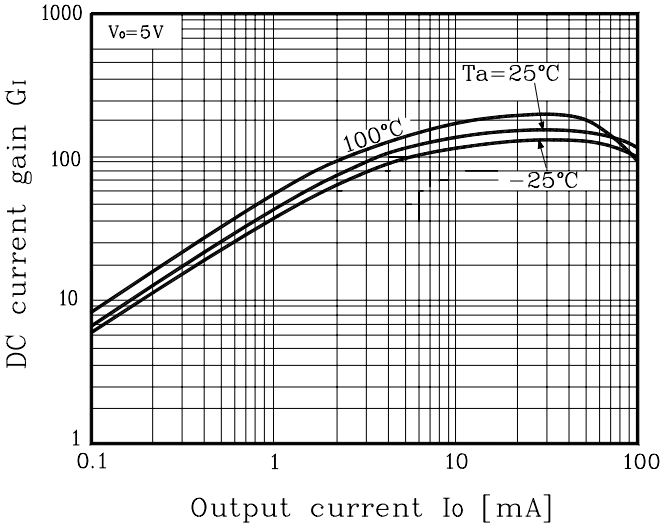
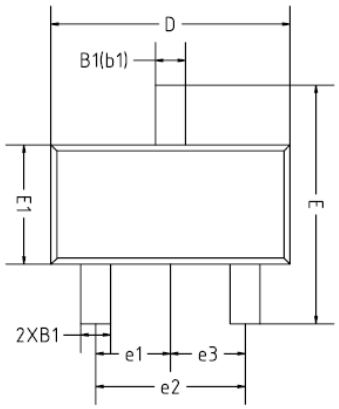
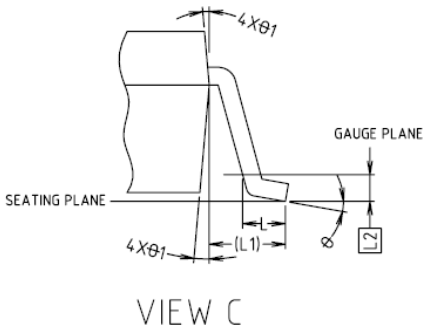


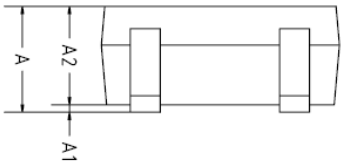
Fig. 4 G_I - I_O

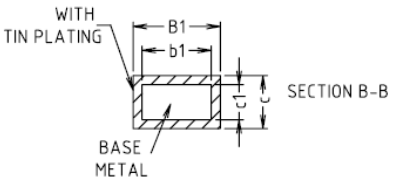


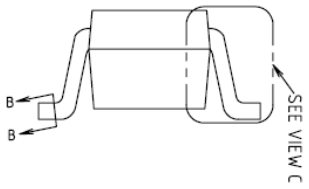
Outline Dimension





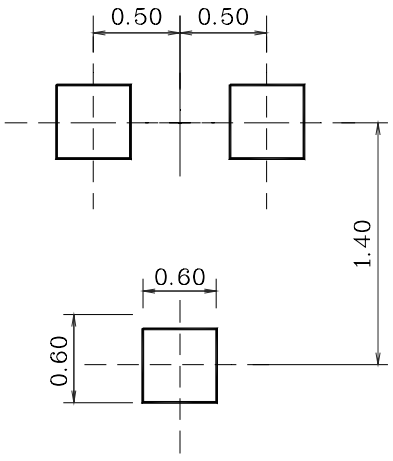






SYMBOL	MILLIMETERS			NOTE
	MINIMUM	NOMINAL	MAXIMUM	
A	–	–	0.80	
A1	0.00	–	0.10	
A2	0.65	0.70	0.75	
B1	0.19	–	0.24	
b1	0.17	–	0.21	
c	0.13	–	0.15	
c1	0.10	–	0.12	
D	1.48	1.58	1.68	
E	1.50	1.60	1.70	
E1	0.66	0.76	0.86	
e1	0.50 BSC			
e2	1.00 BSC			
e3	0.50 BSC			
L	0.15	0.205	0.30	
L1	0.40 REF			
L2	0.15 BSC			
θ	0°	–	8°	
θ1	4°	–	10°	

※Recommend PCB solder land [Unit: mm]



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