

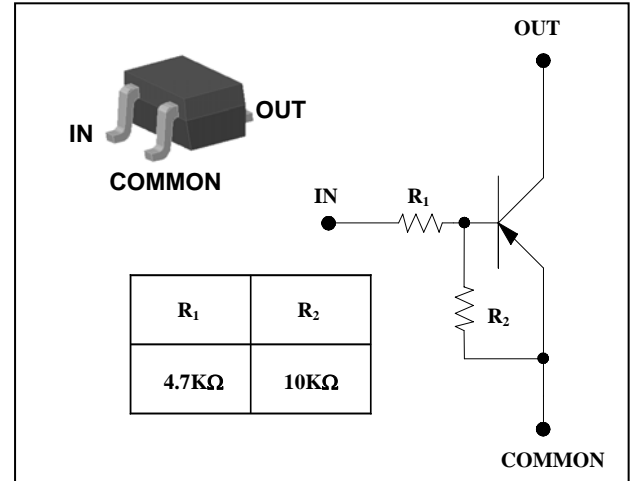
## Descriptions

- 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
SRA2219E	$\frac{CR}{\text{① ②}}$ ① Device Code ② Year&Week Code	SOT-523

## Absolute Maximum Ratings

(Ta=25°C)

Characteristic	Symbol	Rating	Unit
Output voltage	$V_O$	-50	V
Input voltage	$V_I$	-20, 7	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	$G_I$	$V_O = -5V, I_O = -10mA$	30	-	-	-
Output voltage	$V_{O(ON)}$	$I_O = -10mA, I_I = -0.5mA$	-	-0.1	-0.3	V
Input voltage (ON)	$V_{I(ON)}$	$V_O = -0.2V, I_O = -5mA$	-	-1.2	-1.6	V
Input voltage (OFF)	$V_{I(OFF)}$	$V_O = -5V, I_O = -0.1mA$	-0.5	-0.82	-	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 $\Omega$
Input resistor (Base to common)	$R_2$	-	7	10	13	K $\Omega$

\* : Characteristic of transistor only

Electrical Characteristic Curves

Fig. 1  $P_D - T_a$

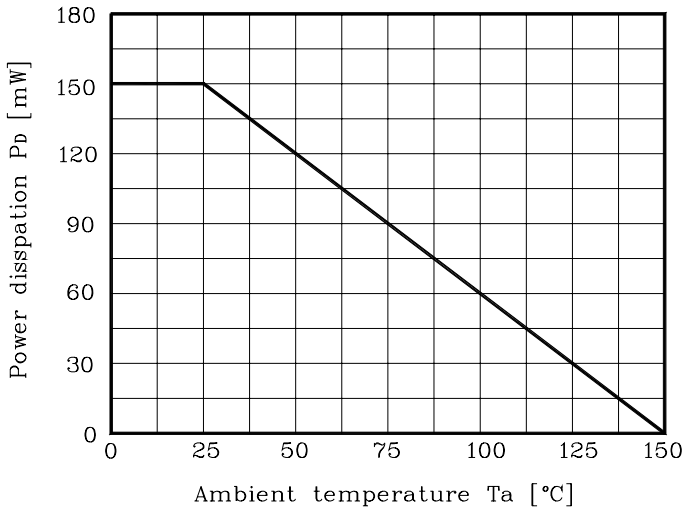


Fig. 2  $I_O - V_{I(ON)}$

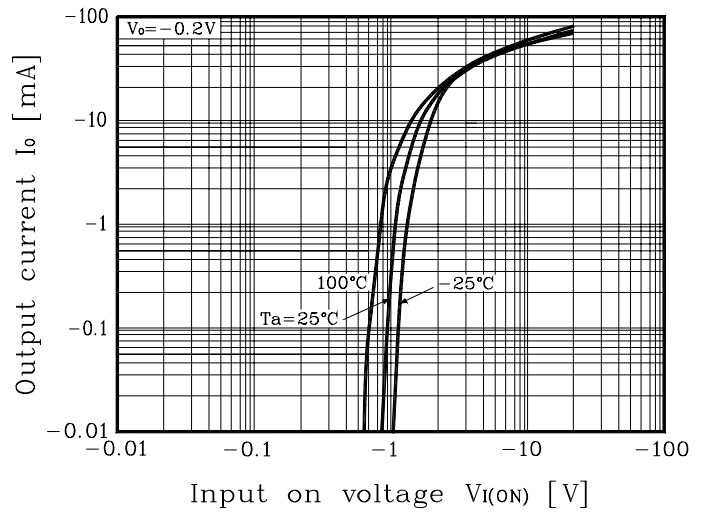


Fig. 3  $I_O - V_{I(OFF)}$

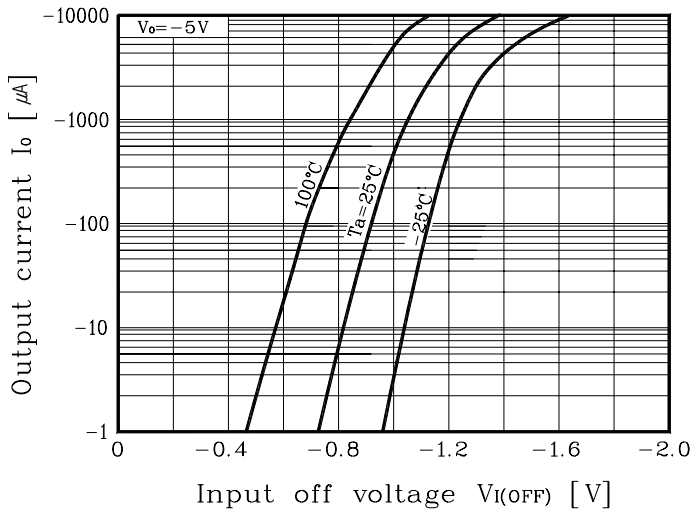
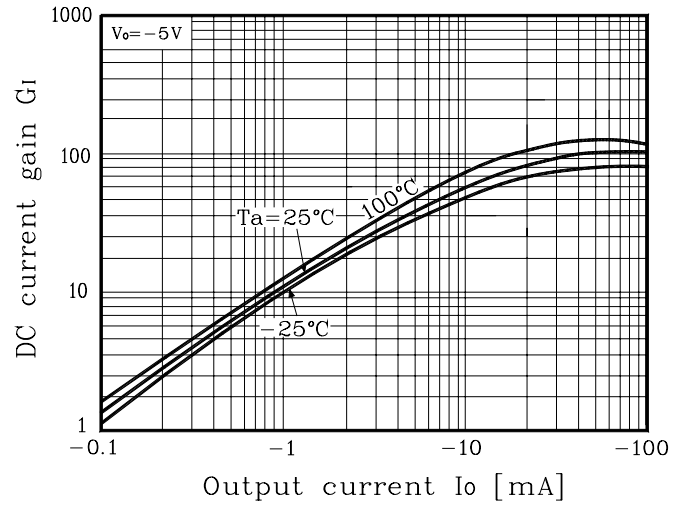
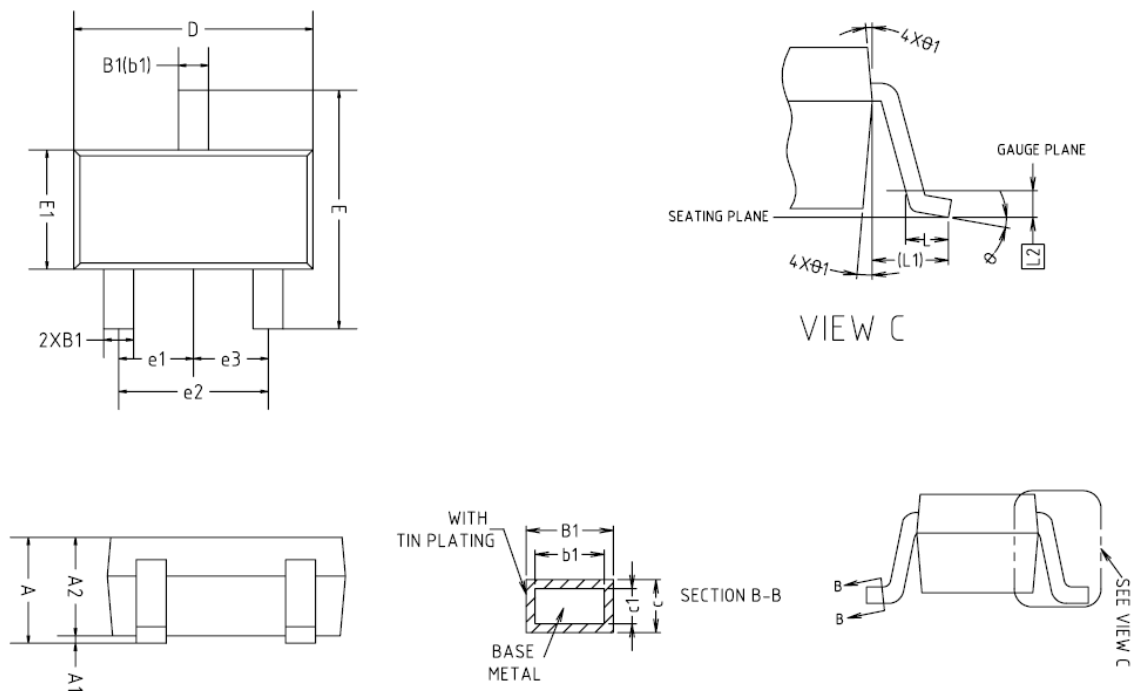


Fig. 4  $G_I - I_O$

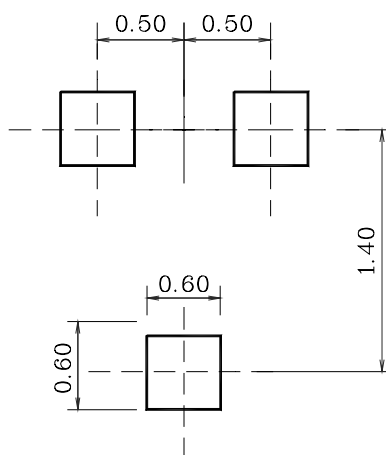


## Outline Dimension



SYMBOL	MILLIMETERS			NOTE
	MINIMUM	NOMINAL	MAXIMUM	
A	—	—	0.80	
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			
φ	0"	—	8"	
θ1	4°	—	10°	

※Recommend PCB solder land [Unit: mm]



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