

SRC1205UF

NPN Silicon Transistor

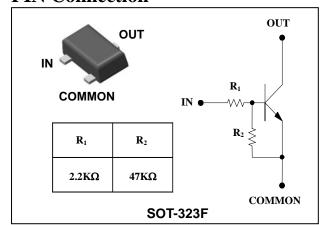
Descriptions

- 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



Ordering Information

Type NO.	Marking	Package Code	
SRC1205UF	<u>R5</u> □ ① ②	SOT-323F	

①Device Code ② Year&Week Code

Absolute Maximum Ratings

(Ta=25°C)

Characteristic	Symbol	Rating	Unit
Output voltage	Vo	50	V
Input voltage	V _I	15,-5	V
Output current	I _O	100	mA
Power dissipation	P_{D}	200	mW
Junction temperature	TJ	150	°C
Storage temperature range	T _{stg}	-55 ~ 150	°C

Electrical Characteristics

 $(Ta=25^{\circ}C)$

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Output cut-off current	I _{O(OFF)}	$V_0 = 50V, V_1 = 0$	-	-	500	nA
DC current gain	Gı	$V_0 = 5V$, $I_0 = 10mA$	80	200	-	-
Output voltage	$V_{O(ON)}$	I _O =10mA, I _I =0.5mA	-	0.1	0.3	V
Input voltage (ON)	$V_{I(ON)}$	$V_0 = 0.2V$, $I_0 = 5mA$	-	-	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 ₁	$V_1 = 5V, I_0 = 0$	-	-	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

KSD-R5D010-002

Electrical Characteristic Curves

Fig. 1 I_{O} - $V_{I(ON)}$

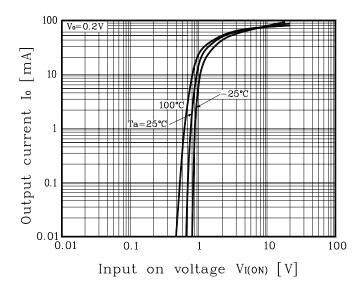


Fig. 2 I_O - $V_{I(OFF)}$

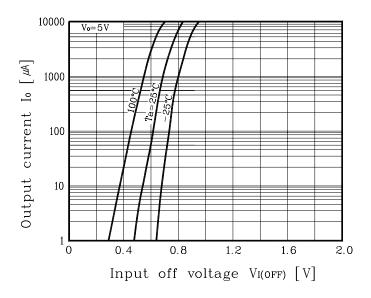
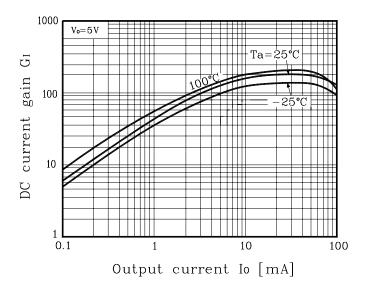
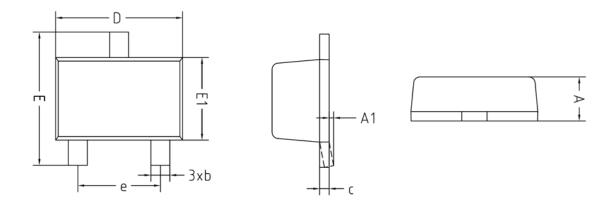


Fig. 3 G_I - I_O



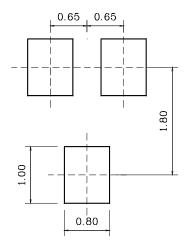
KSD-R5D010-002 2

Outline Dimension



SYMBOL	MILLIMETERS			NOTE
STINDUL	MINIMUM	NOMINAL	MAXIMUM	NOTE
Α	0.60	-	0.80	
A1	0.00	-	0.10	
Ь	0.30	-	0.40	
С	0.08	-	0.16	
D	1.90	2.00	2.10	
Е	1.95	2.10	2.25	
E1	1.20	1.30	1.40	
е	1.30BSC			

*Recommend PCB solder land [Unit: mm]



KSD-R5D010-002 3

SRC1205UF

The AUK Corp. products are intended for the use as components in general electronic equipment (Office and communication equipment, measuring equipment, home appliance, etc.).

Please make sure that you consult with us before you use these AUK Corp. products in equipments which require high quality and / or reliability, and in equipments which could have major impact to the welfare of human life(atomic energy control, airplane, spaceship, transportation, combustion control, all types of safety device, etc.). AUK Corp. cannot accept liability to any damage which may occur in case these AUK Corp. products were used in the mentioned equipments without prior consultation with AUK Corp..

Specifications mentioned in this publication are subject to change without notice.

KSD-R5D010-002