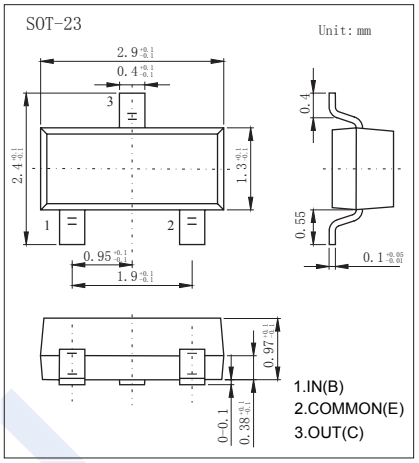
PNP Transistors
KRA101S ~ KRA106S

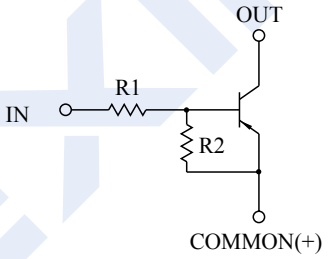


■ Features

- With Built-in Bias Resistors.
- Simplify Circuit Design.
- Reduce a Quantity of Parts and Manufacturing Process.

BIAS RESISTOR VALUES

TYPE NO.	R1(kΩ)	R2(kΩ)
KRA101S	4.7	4.7
KRA102S	10	10
KRA103S	22	22
KRA104S	47	47
KRA105S	2.2	47
KRA106S	4.7	47



■ Absolute Maximum Ratings Ta = 25℃

Parameter		Symbol	Rating	Unit
Output Voltage	KRA101S~106S	V_O	-50	V
Input Voltage	KRA101S	V_I	-20,10	
	KRA102S		-30,10	
	KRA103S		-40,10	
	KRA104S		-40,10	
	KRA105S		-12,5	
	KRA106S		-20,5	
Output Current	KRA101S~106S	I_O	-100	mA
Power Dissipation		P_D	200	mW
Junction Temperature		T_J	150	℃
Storage Temperature range		T_{stg}	-55 to 150	

PNP Transistors

KRA101S ~ KRA106S

■ Electrical Characteristics Ta = 25℃

Parameter		Symbol	Test Conditions	Min	Typ	Max	Unit
Output Voltage	KRA101S~106S	$V_{O(ON)}$	Io= -10mA,II =-0.5mA		-0.1	-0.3	V
Input Voltage (ON)	KRA101S	$V_{I(ON)}$	Vo= -0.2V,IO =-5mA		-1.5	-2	V
	KRA102S				-1.8	-2.4	
	KRA103S				-2.1	-3	
	KRA104S				-2.8	-5	
	KRA105S				-0.8	-1.1	
	KRA106S				-0.9	-1.3	
Input Voltage (OFF)	KRA101S~104S	$V_{I(OFF)}$	Vo= -5V,IO=-0.1mA	-1	-1.2		
	KRA105S~106S			-0.5	-0.65		
Output Cut-off Current	KRA101S~106S	$I_{O(OFF)}$	Vo= -50V,VI =0			-500	nA
Input Current	KRA101S	I_I	VI =-5V			-1.8	mA
	KRA102S					-0.88	
	KRA103S					-0.36	
	KRA104S					-0.18	
	KRA105S					-3.6	
	KRA106S					-1.8	
DC Current Gain	KRA101S	G_I	Vo= -5V， IO=-10mA	30	55		
	KRA102S			50	80		
	KRA103S			70	120		
	KRA104S~106S			80	200		
Rise Time	KRA101S	tr	VO=-5V VIN=-5V RL=1kΩ		0.07		uS
	KRA102S				0.06		
	KRA103S				0.2		
	KRA104S				0.24		
	KRA105S				0.02		
	KRA106S				0.07		
Storage Time	KRA101S~106S	t_{stg}			1.1		
Fall Time	KRA101S	tf			0.15		
	KRA102S				0.24		
	KRA103S				0.38		
	KRA104S				0.63		
	KRA105S				0.1		
	KRA106S				0.2		
Transition frequency	KRA101S~106S	f_T	Vo= -10V,IO =-5mA		200		MHz

■ Marking

NO	KRA101S	KRA102S	KRA103S	KRA104S	KRA105S	KRA106S
Marking	PA	PB	PC	PD	PE	PF

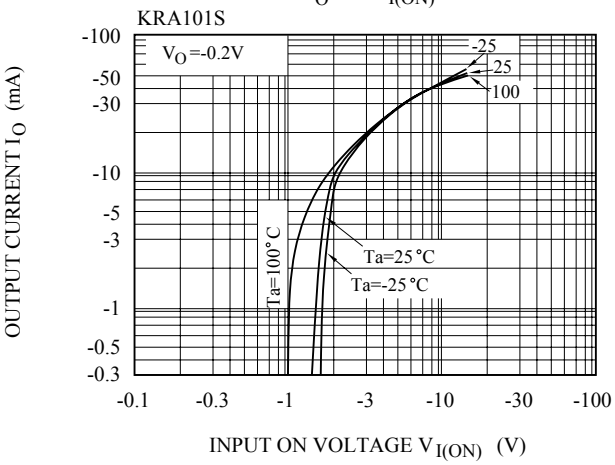
PNP Transistors

KRA101S ~ KRA106S

■ Typical Characterisitics

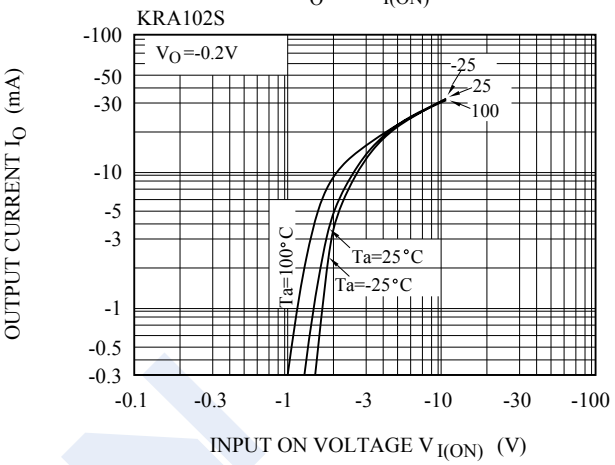
I_O - $V_{I(ON)}$

KRA101S



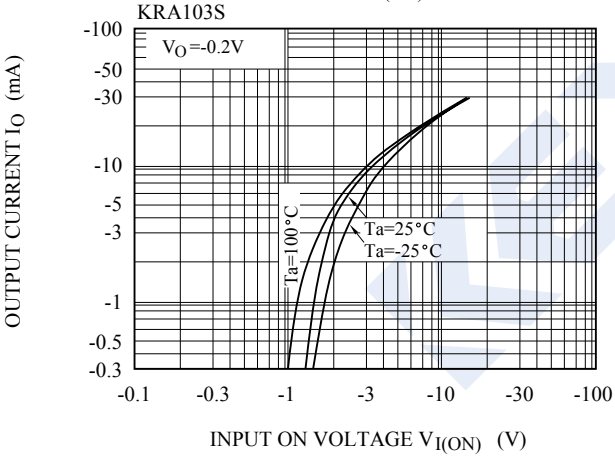
I_O - $V_{I(ON)}$

KRA102S



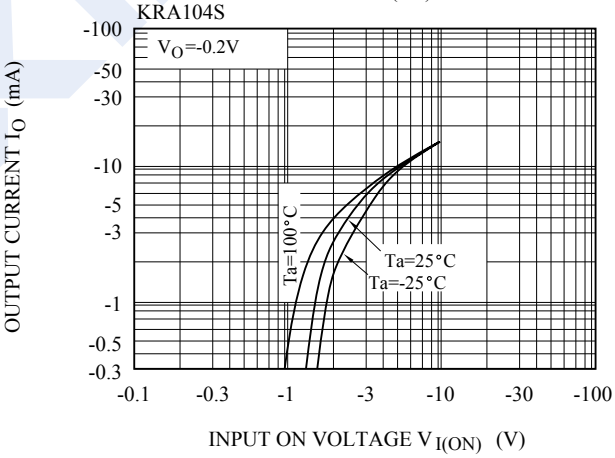
I_O - $V_{I(ON)}$

KRA103S



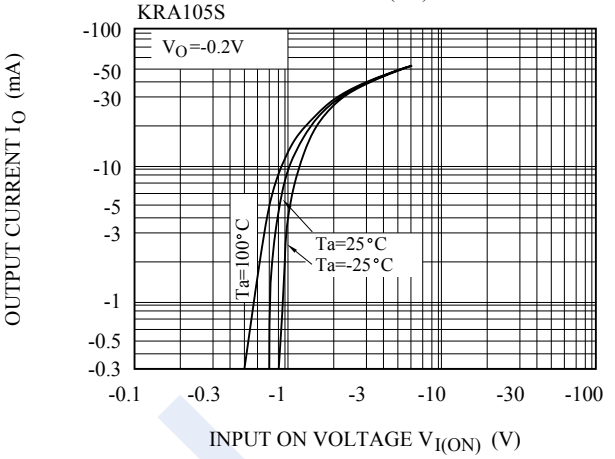
I_O - $V_{I(ON)}$

KRA104S



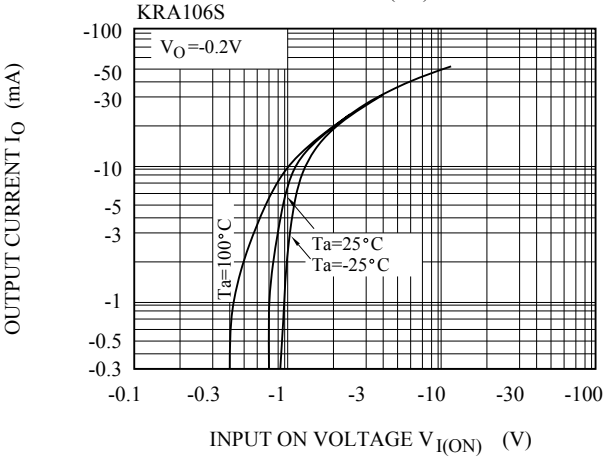
I_O - $V_{I(ON)}$

KRA105S



I_O - $V_{I(ON)}$

KRA106S

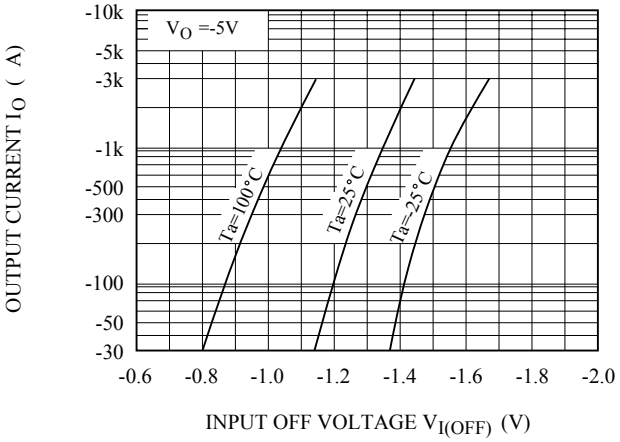


PNP Transistors
KRA101S ~ KRA106S

■ Typical Characterisitics

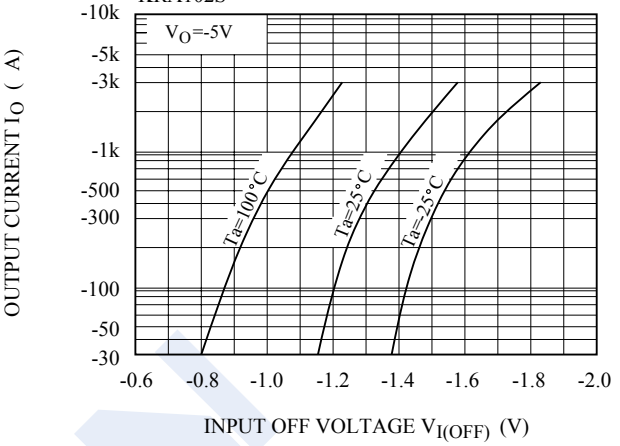
I_O - $V_{I(OFF)}$

KRA101S



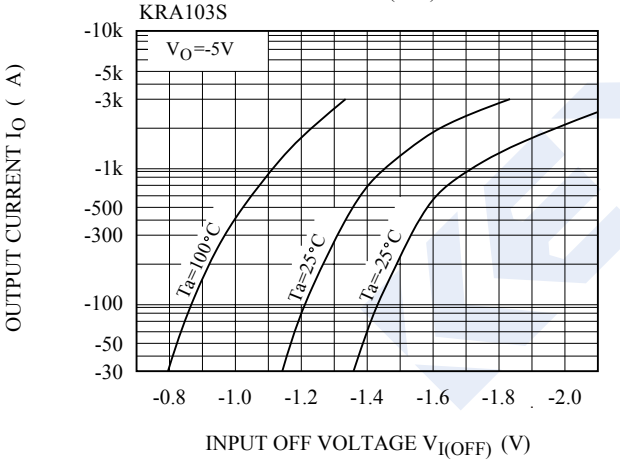
I_O - $V_{I(OFF)}$

KRA102S



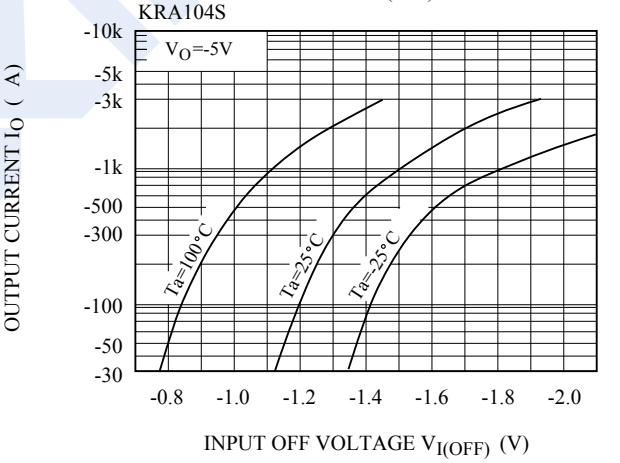
I_O - $V_{I(OFF)}$

KRA103S



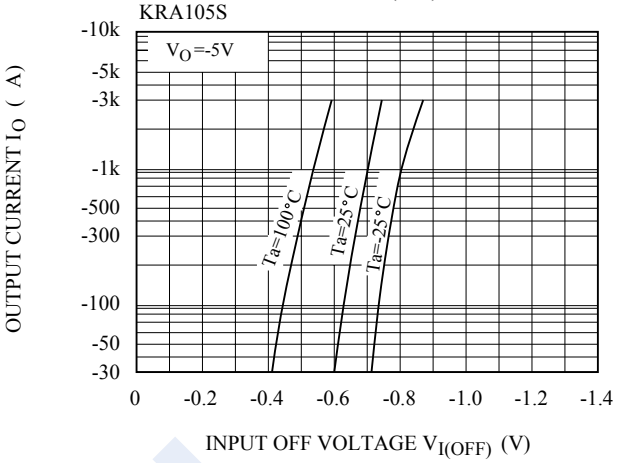
I_O - $V_{I(OFF)}$

KRA104S



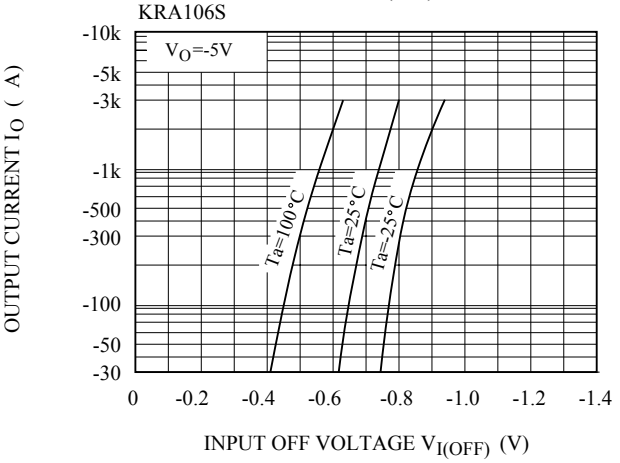
I_O - $V_{I(OFF)}$

KRA105S



I_O - $V_{I(OFF)}$

KRA106S



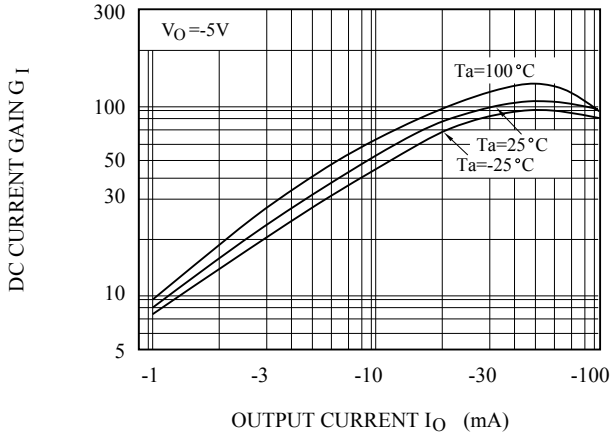
PNP Transistors

KRA101S ~ KRA106S

■ Typical Characterisitics

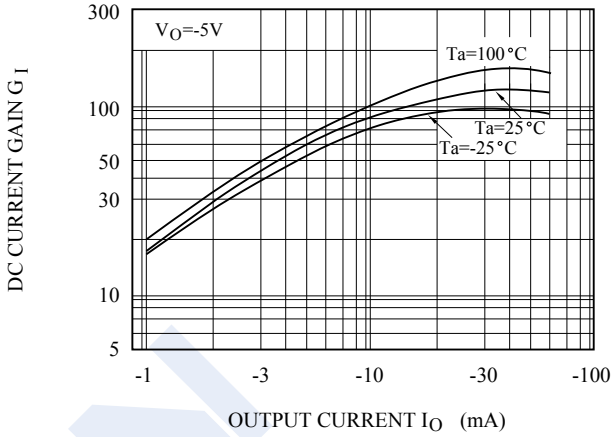
G_I - I_O

KRA101S



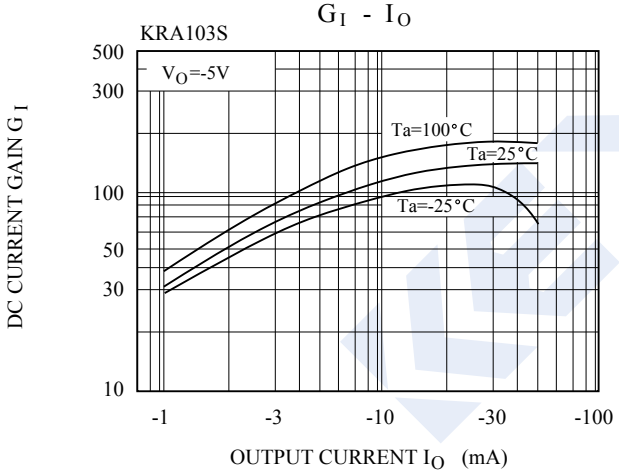
G_I - I_O

KRA102S



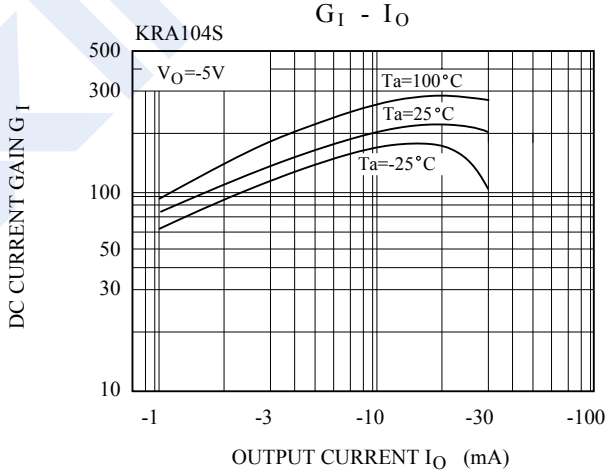
G_I - I_O

KRA103S



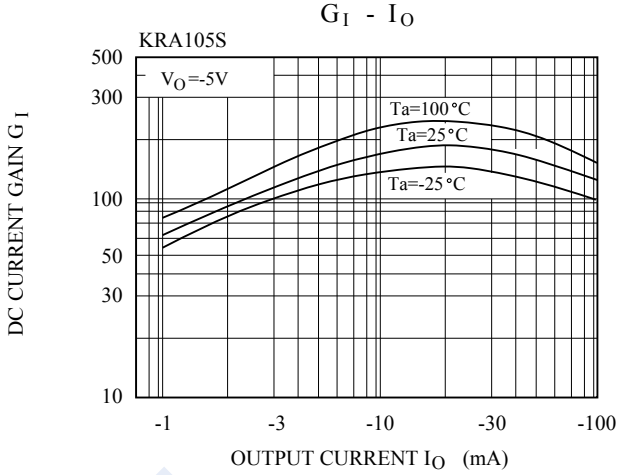
G_I - I_O

KRA104S



G_I - I_O

KRA105S



G_I - I_O

KRA106S