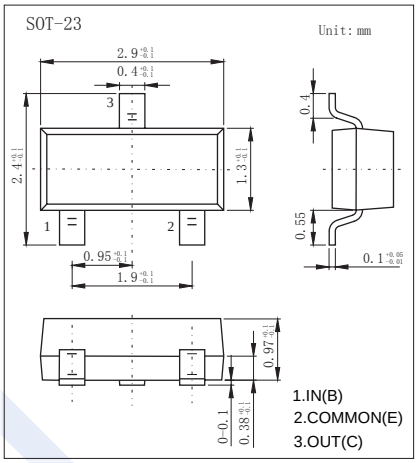
NPN Transistors
KRC101S ~ KRC106S

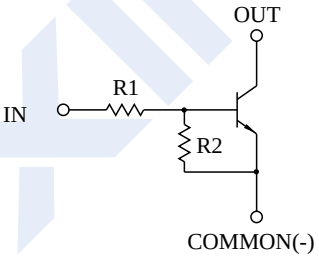


■ Features

- 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)
KRC101S	4.7	4.7
KRC102S	10	10
KRC103S	22	22
KRC104S	47	47
KRC105S	2.2	47
KRC106S	4.7	47



■ Absolute Maximum Ratings Ta = 25℃

Parameter		Symbol	Rating	Unit
Output Voltage	KRC101S~106S	V_O	50	V
Input Voltage	KRC101S	V_I	20,-10	
	KRC102S		30,-10	
	KRC103S		40,-10	
	KRC104S		40,-10	
	KRC105S		12,-5	
	KRC106S		20,-5	
Output Current	KRC101S~106S	I_O	100	mA
Power Dissipation		P_D	200	mW
Junction Temperature		T_J	150	℃
Storage Temperature range		T_{stg}	-55 to 150	

NPN Transistors

KRC101S ~ KRC106S

■ Electrical Characteristics Ta = 25℃

Parameter		Symbol	Test Conditions	Min	Typ	Max	Unit
Output Voltage	KRC101S~106S	$V_{O(ON)}$	I_O= 10mA,I_I = 0.5mA		0.1	0.3	V
Input Voltage (ON)	KRC101S	$V_{I(ON)}$	V_O= 0.2V,I_O =5mA		1.5	2	V
	KRC102S				1.8	2.4	
	KRC103S				2.1	3	
	KRC104S				2.8	5	
	KRC105S				0.8	1.1	
	KRC106S				0.9	1.3	
Input Voltage (OFF)	KRC101S~104S	$V_{I(OFF)}$	V_O= 5V,I_O=0.1mA	1	1.2		
	KRC105S~106S			0.5	0.65		
Output Cut-off Current	KRC101S~106S	$I_{O(OFF)}$	V_O= 50V,V_I =0			500	nA
Input Current	KRC101S	I_I	V_I =5V			1.8	mA
	KRC102S					0.88	
	KRC103S					0.36	
	KRC104S					0.18	
	KRC105S					3.6	
	KRC106S					1.8	
DC Current Gain	KRC101S	G_I	V_O= 5V， I_O=10mA	30	55		
	KRC102S			50	80		
	KRC103S			70	120		
	KRC104S~106S			80	200		
Rise Time	KRC101S	tr	V_O=5V V_{IN}=5V R_L=1kΩ		0.03		uS
	KRC102S				0.05		
	KRC103S				0.12		
	KRC104S				0.22		
	KRC105S				0.01		
	KRC106S				0.03		
Storage Time	KRC101S~106S	t_{stg}			2		
Fall Time	KRC101S	tf			0.12		
	KRC102S				0.36		
	KRC103S				0.35		
	KRC104S				0.6		
	KRC105S				0.1		
	KRC106S				0.19		
Transition frequency	KRC101S~106S	f_T	V_O= 10V,I_O =5mA		200		MHz

■ Marking

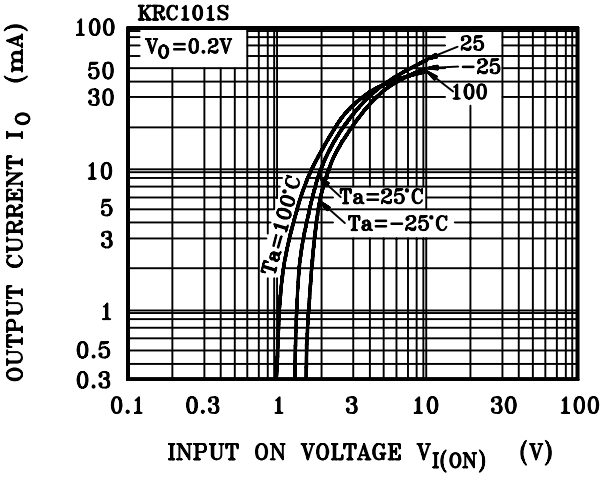
NO	KRC101S	KRC102S	KRC103S	KRC104S	KRC105S	KRC106S
Marking	NA	NB	NC	ND	NE	NF

NPN Transistors

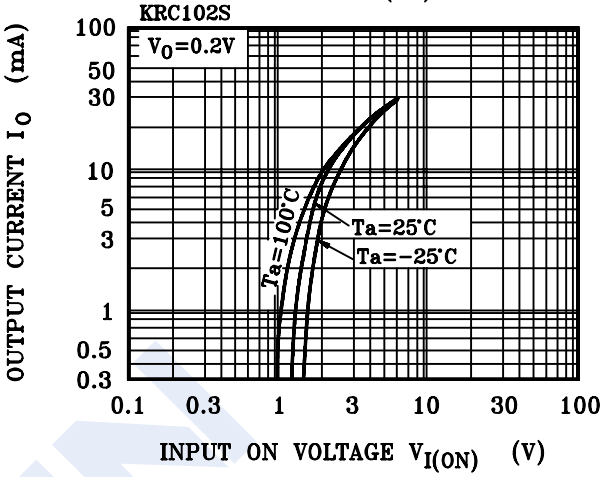
KRC101S ~ KRC106S

■ TyNical Characterisitics

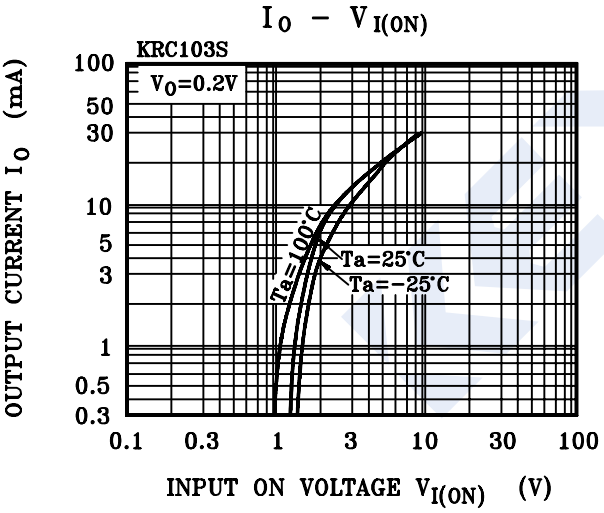
$I_O - V_{I(ON)}$



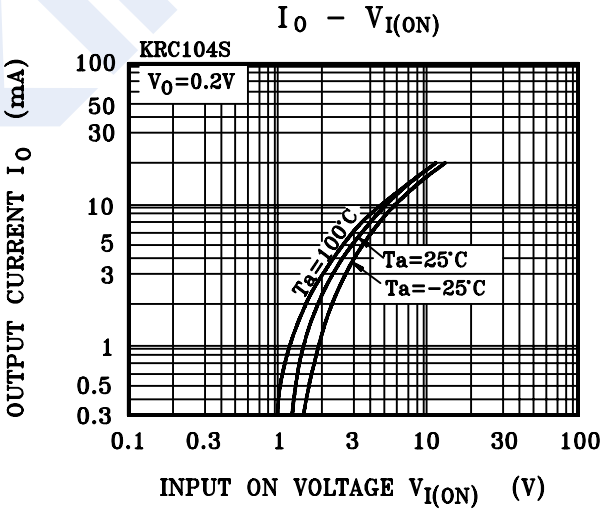
$I_O - V_{I(ON)}$



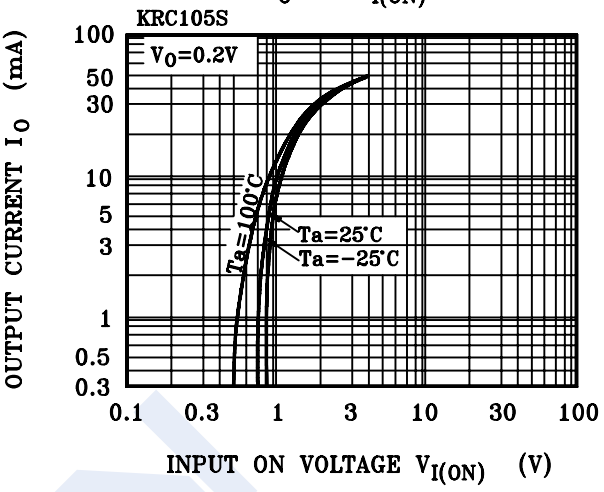
$I_O - V_{I(ON)}$



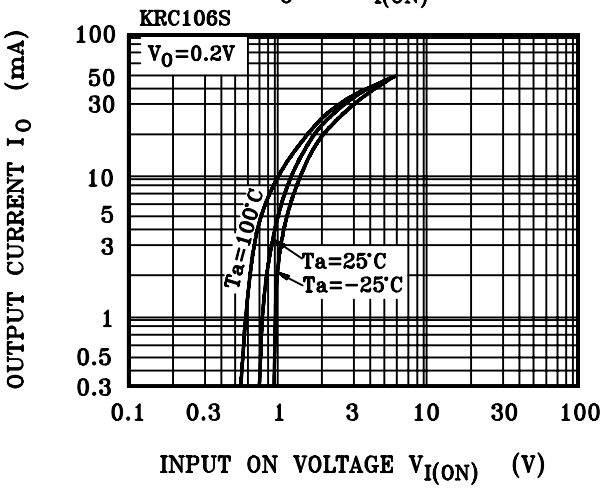
$I_O - V_{I(ON)}$



$I_O - V_{I(ON)}$



$I_O - V_{I(ON)}$

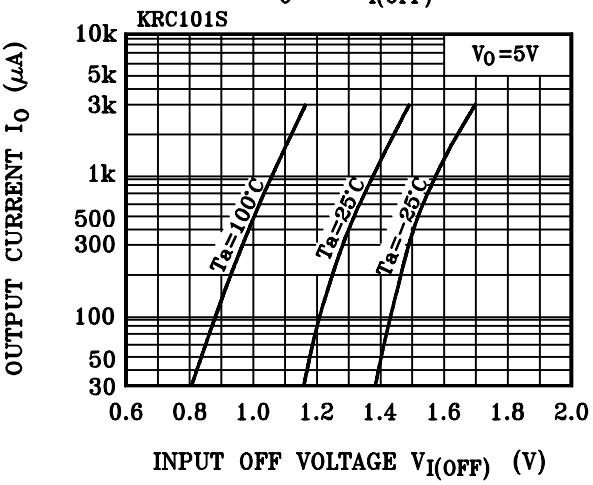


NPN Transistors

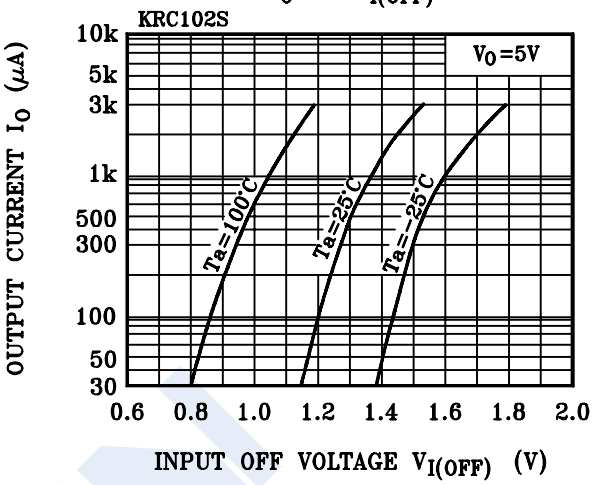
KRC101S ~ KRC106S

■ TyNical Characterisitics

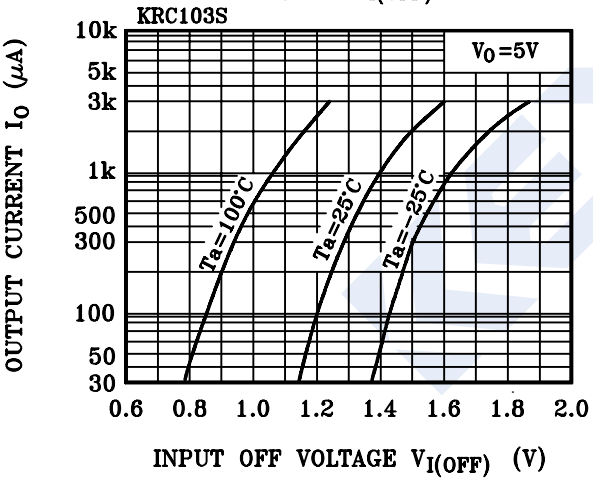
$I_O - V_{I(OFF)}$



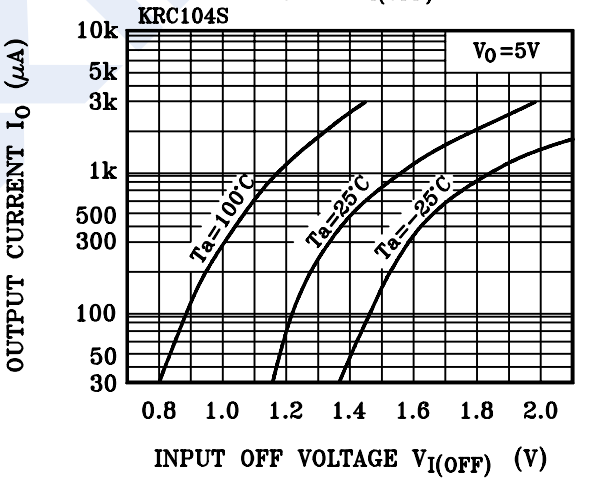
$I_O - V_{I(OFF)}$



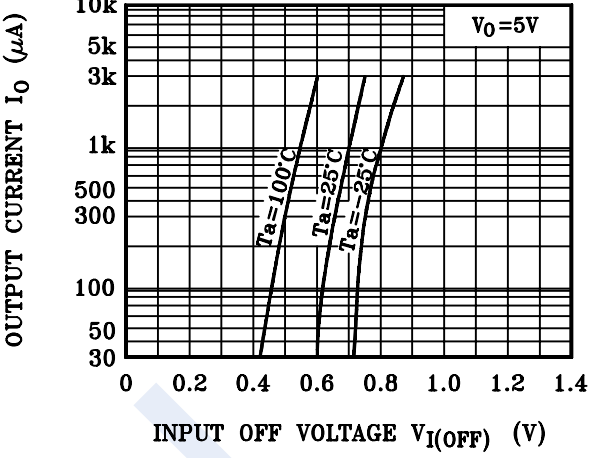
$I_O - V_{I(OFF)}$



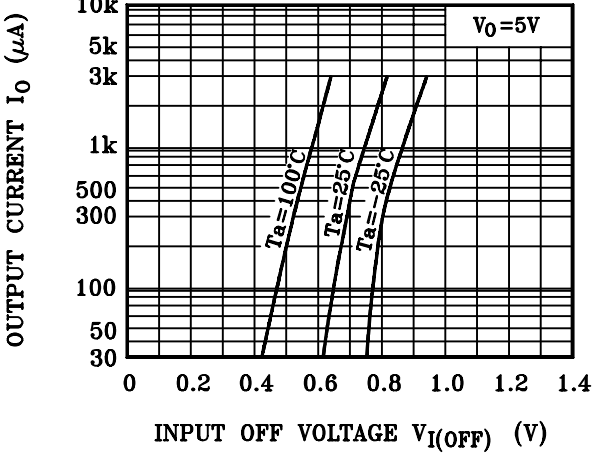
$I_O - V_{I(OFF)}$



$I_O - V_{I(OFF)}$



$I_O - V_{I(OFF)}$



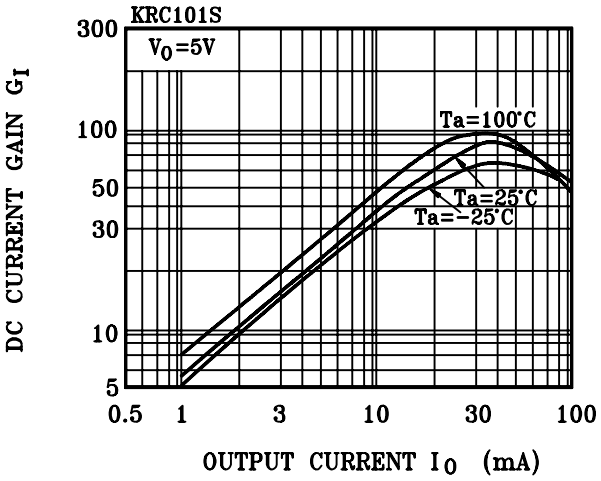
NPN Transistors

KRC101S ~ KRC106S

■ TyNical Characterisitics

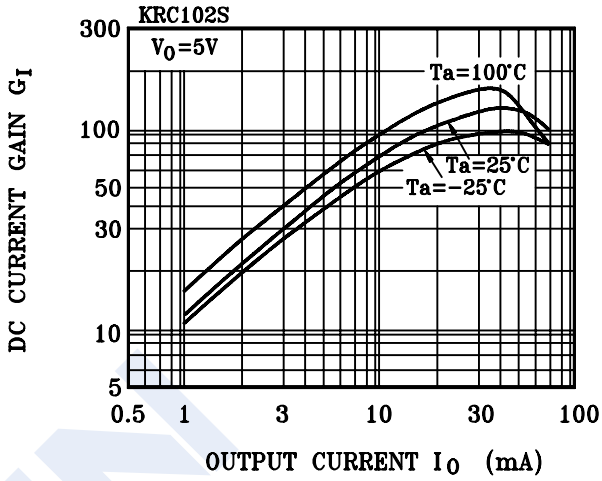
$G_I - I_O$

KRC101S



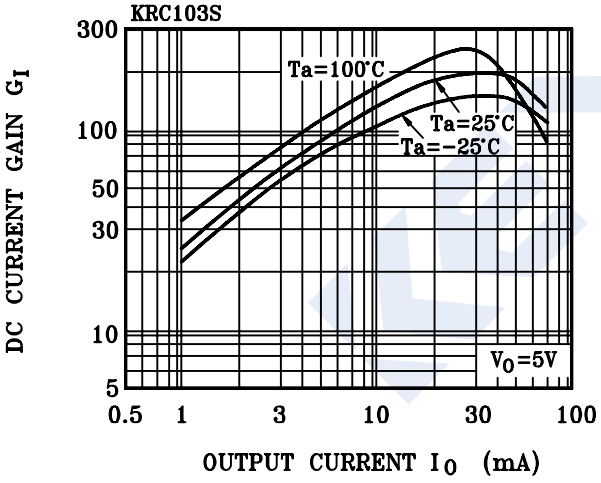
$G_I - I_O$

KRC102S



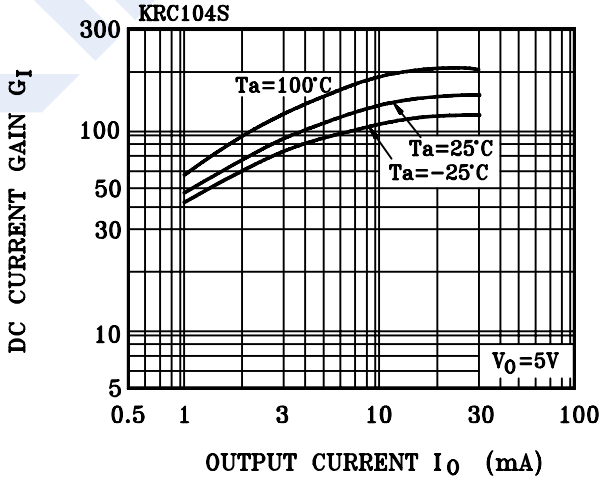
$G_I - I_O$

KRC103S



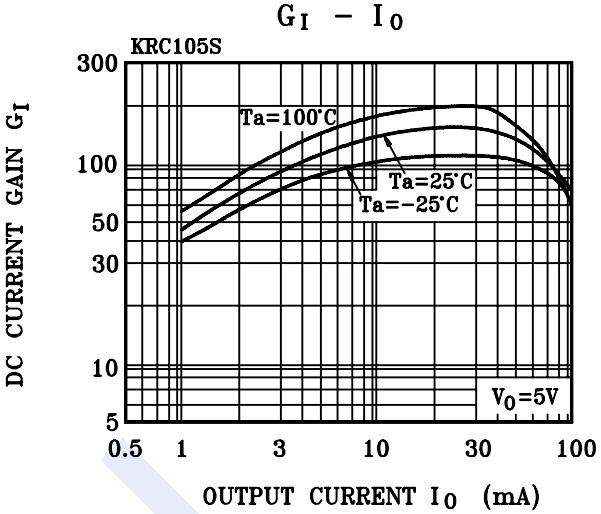
$G_I - I_O$

KRC104S



$G_I - I_O$

KRC105S



$G_I - I_O$

KRC106S

