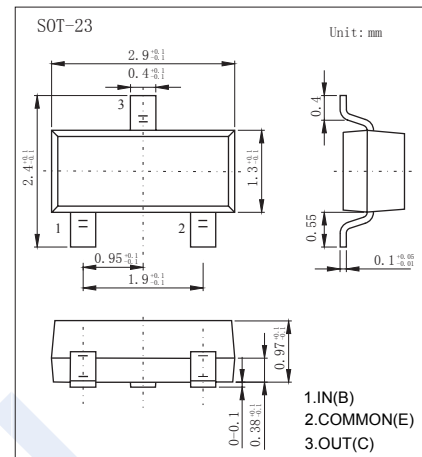


## NPN Transistors

### KRC101S ~ KRC106S

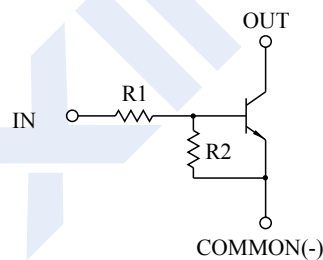
#### ■ Features

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



#### BIAS RESISTOR VALUES

TYPE NO.	R1(k $\Omega$ )	R2(k $\Omega$ )
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°C

Parameter		Symbol	Rating	Unit
Output Voltage	KRC101S~106S	V <sub>o</sub>	50	V
Input Voltage	KRC101S	V <sub>i</sub>	20,-10	
	KRC102S		30,-10	
	KRC103S		40,-10	
	KRC104S		40,-10	
	KRC105S		12,-5	
	KRC106S		20,-5	
Output Current	KRC101S~106S	I <sub>o</sub>	100	mA
Power Dissipation		P <sub>D</sub>	200	mW
Junction Temperature		T <sub>J</sub>	150	°C
Storage Temperature range		T <sub>stg</sub>	-55 to 150	

## NPN Transistors

### KRC101S ~ KRC106S

■ Electrical Characteristics Ta = 25°C

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	$t_r$			0.03		μs
	KRC102S				0.05		
	KRC103S				0.12		
	KRC104S				0.22		
	KRC105S				0.01		
	KRC106S				0.03		
Storage Time	KRC101S~106S	$t_{stg}$	$V_o = 5V, V_{IN} = 5V, R_L = 1k\Omega$		2		μs
Fall Time	KRC101S	$t_f$			0.12		μs
	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

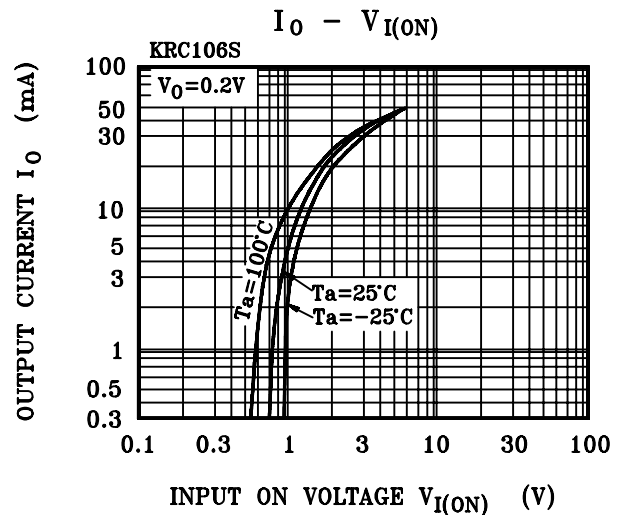
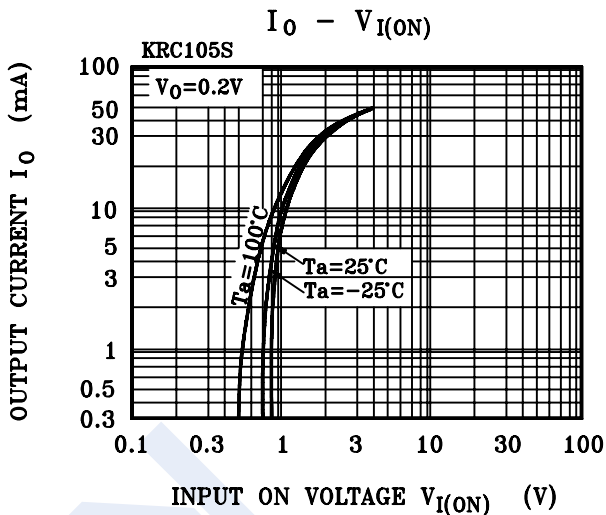
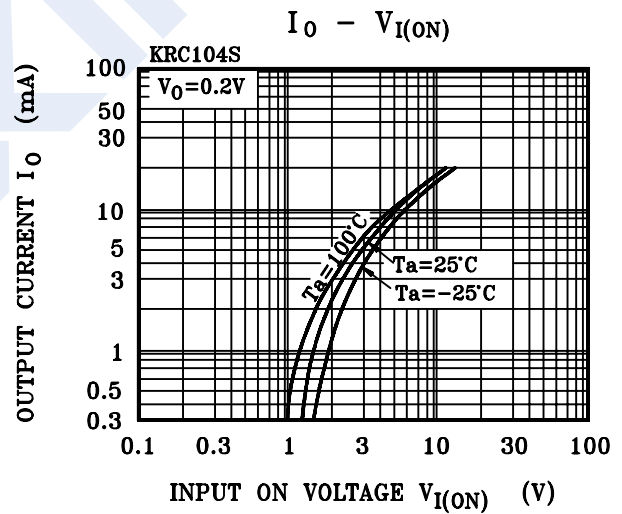
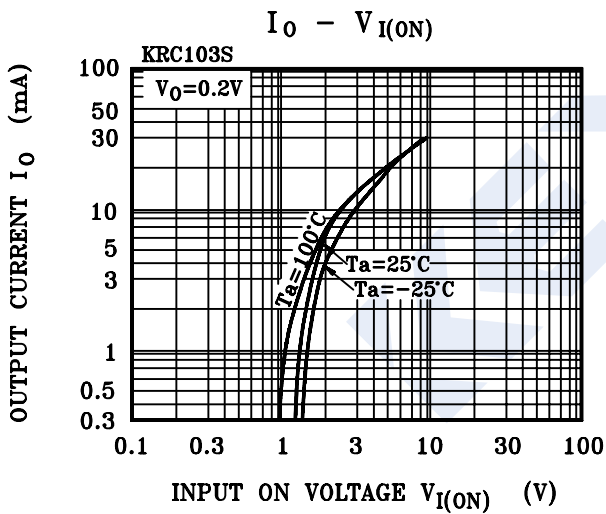
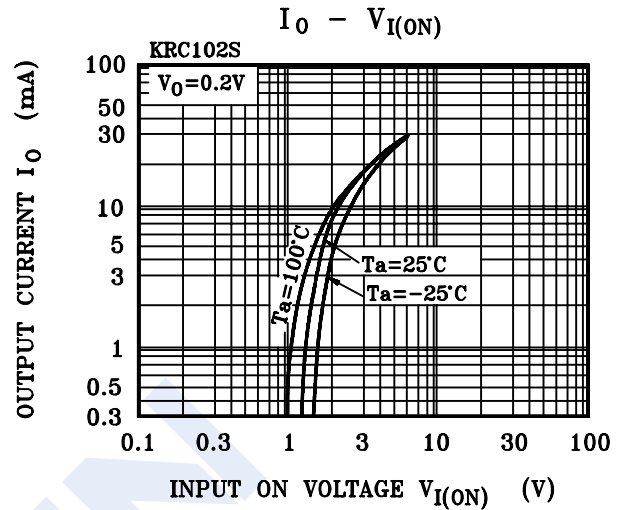
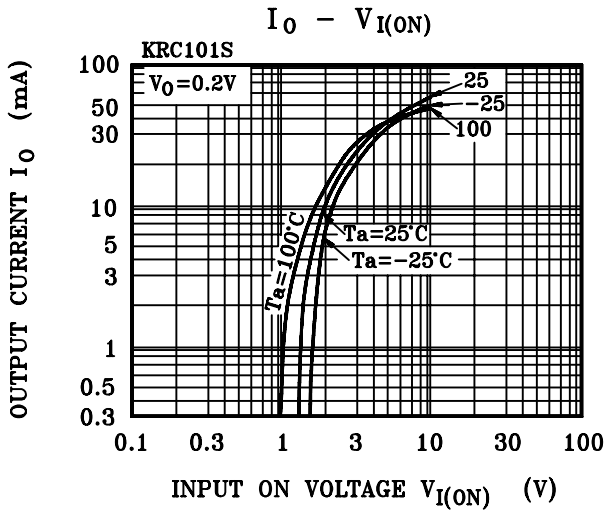
■ Marking

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

## NPN Transistors

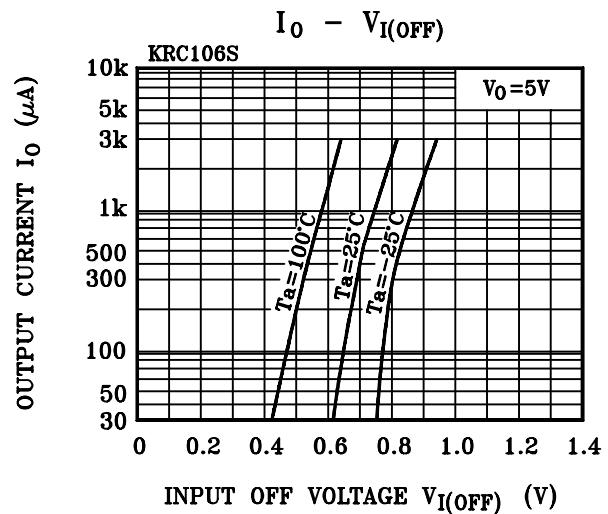
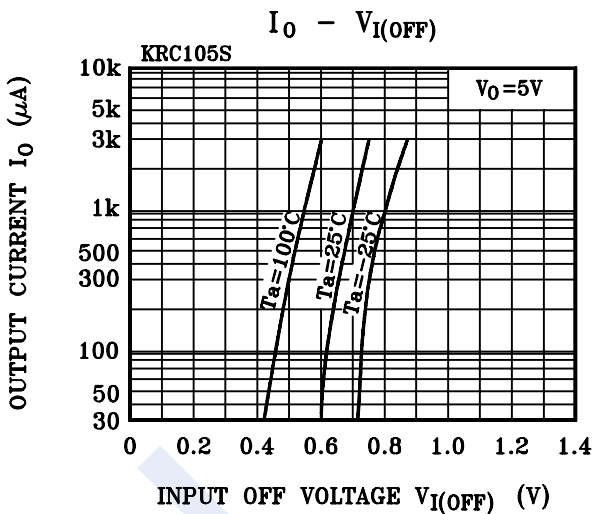
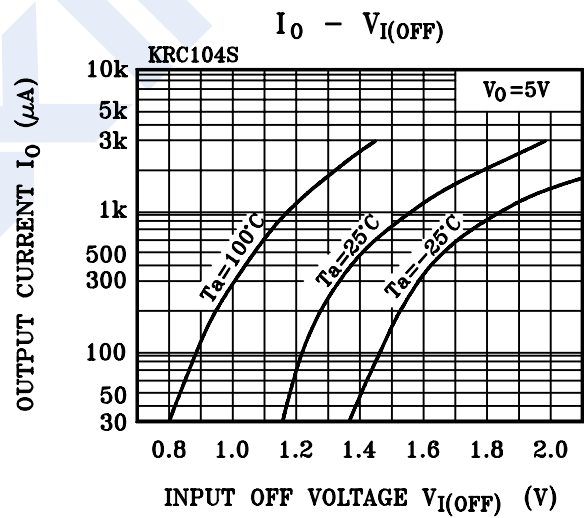
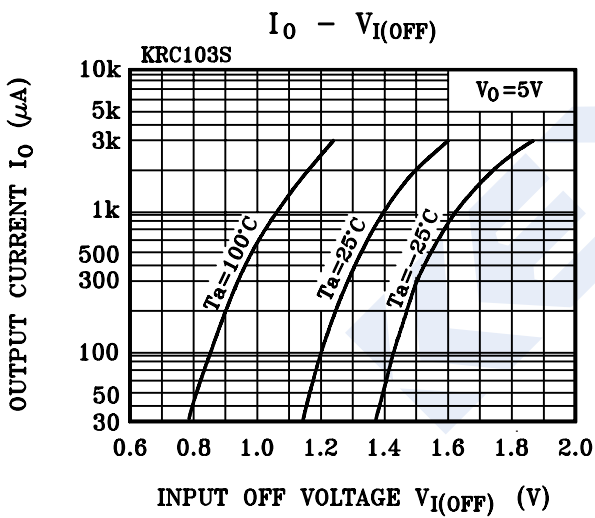
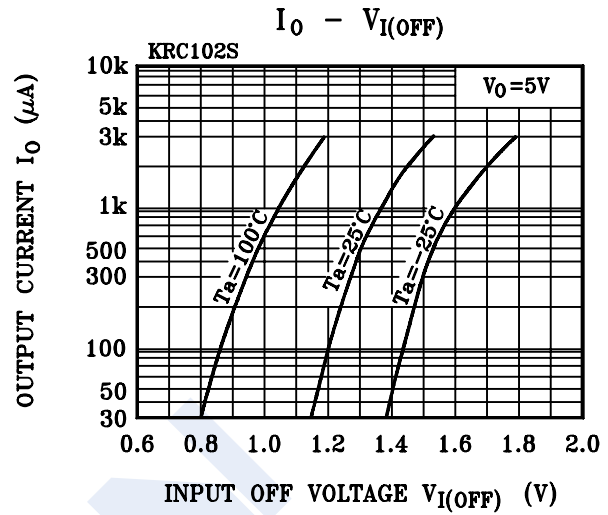
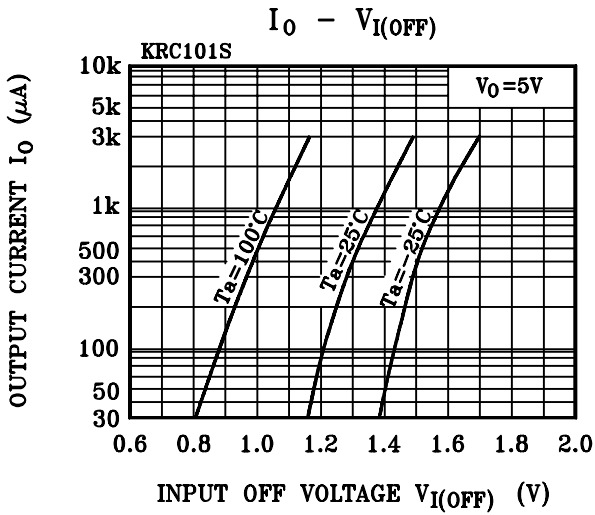
### KRC101S ~ KRC106S

#### ■ TyNical Characteristics



## NPN Transistors KRC101S ~ KRC106S

■ TyNical Characteristics



## NPN Transistors

### KRC101S ~ KRC106S

#### Typical Characteristics

