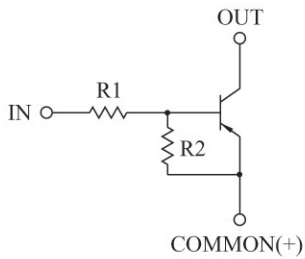


SWITCHING APPLICATION.
INTERFACE CIRCUIT AND DRIVER CIRCUIT APPLICATION.

FEATURES

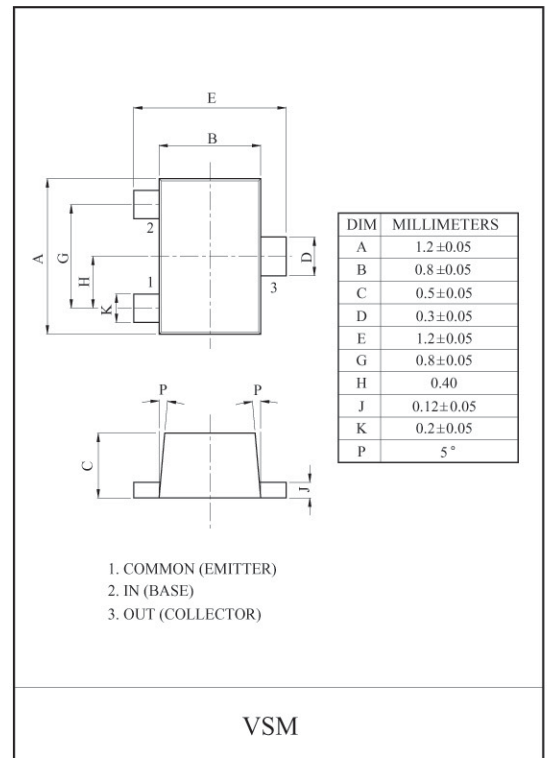
- With Built-in Bias Resistors.
- Simplify Circuit Design.
- Reduce a Quantity of Parts and Manufacturing Process.
- High Packing Density.

EQUIVALENT CIRCUIT



BIAS RESISTOR VALUES

T PE NO.	R1(kΩ)	R2(kΩ)
KRA301V	4.	4.
KRA302V	10	10
KRA303V	22	22
KRA304V	4	4
KRA305V	2.2	4
KRA306V	4.	4



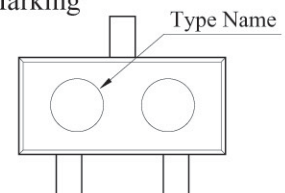
MAXIMUM RATING (Ta=25°C)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Output Voltage	KRA301V~306V	V_O	-50	V
Input Voltage	KRA301V	V_I	-20 10	V
	KRA302V		-30 10	
	KRA303V		-40 10	
	KRA304V		-40 10	
	KRA305V		-12 5	
	KRA306V		-20 5	
Output Current	KRA301V~306V	I_O	-100	mA
Power Dissipation		P_D	100	mW
Junction Temperature		T_j	150	°C
Storage Temperature Range		T_{stg}	-55 ~ 150	°C

MARK SPEC

T PE	KRA301V	KRA302V	KRA303V	KRA304V	KRA305V	KRA306V
MARK	PA	PB	PC	PD	PE	PF

Marking



KRA301V~KRA306V

ELECTRICAL CHARACTERISTICS (Ta=25°C)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Output Cut-off Current	KRA301V ~ 306V	$I_{O(OFF)}$	$V_O=-50V, V_I=0$	-	-	-500	nA
DC Current Gain	KRA301V	G_I	$V_O=-5V, I_O=-10mA$	30	55	-	
	KRA302V			50	80	-	
	KRA303V			70	120	-	
	KRA304V			80	200	-	
	KRA305V			80	200	-	
	KRA306V			80	200	-	
Output Voltage	KRA301V ~ 306V	$V_{O(ON)}$	$I_O=-10mA, I_I=-0.5mA$	-	-0.1	-0.3	V
Input Voltage (ON)	KRA301V	$V_{I(ON)}$	$V_O=-0.2V, I_O=-5mA$	-	-1.5	-2.0	V
	KRA302V			-	-1.8	-2.4	
	KRA303V			-	-2.1	-3.0	
	KRA304V			-	-2.8	-5.0	
	KRA305V			-	-0.8	-1.1	
	KRA306V			-	-0.9	-1.3	
Input Voltage (OFF)	KRA301V ~ 304V	$V_{I(OFF)}$	$V_O=-5V, I_O=-0.1mA$	-1.0	-1.2	-	V
	KRA305V ~ 306V			-0.5	-0.65	-	
Transition Frequency	KRA301V ~ 306V	f_T^*	$V_O=10V, I_O=-5mA$	-	200	-	MHz
Input Current	KRA301V	I_I	$V_I=-5V$	-	-	-1.8	mA
	KRA302V			-	-	-0.88	
	KRA303V			-	-	-0.36	
	KRA304V			-	-	-0.18	
	KRA305V			-	-	-3.6	
	KRA306V			-	-	-1.8	
Input Resistor	KRA301V	R1	-	3.29	4.7	6.11	kΩ
	KRA302V			7	10	13	
	KRA303V			15.4	22	28.6	
	KRA304V			32.9	47	61.1	
	KRA305V			1.54	2.2	2.86	
	KRA306V			3.29	4.7	6.11	
Resistor Ratio	KRA301V ~ 304V	R2/R1	-	0.8	1.0	1.2	
	KRA305V			17	21	26	
	KRA306V			8	10	12	

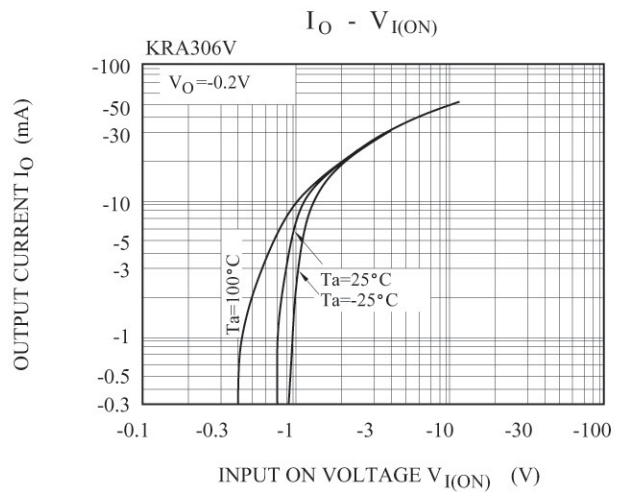
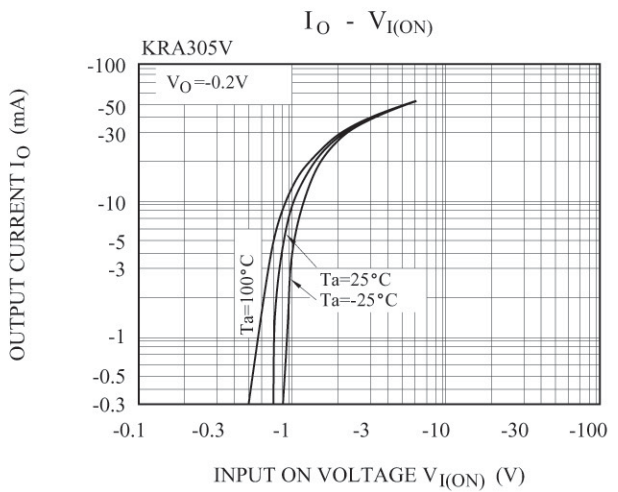
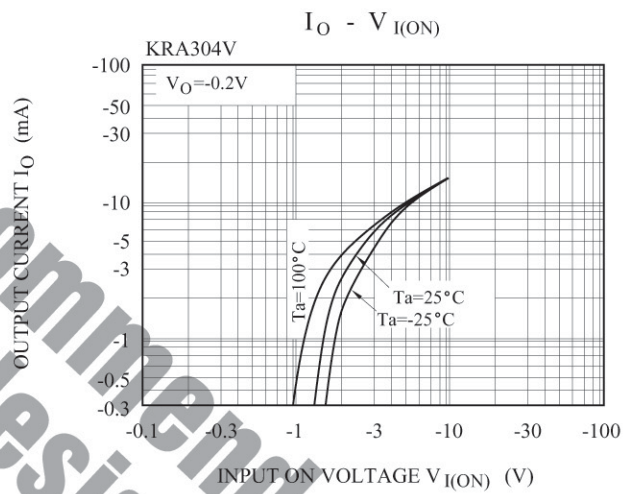
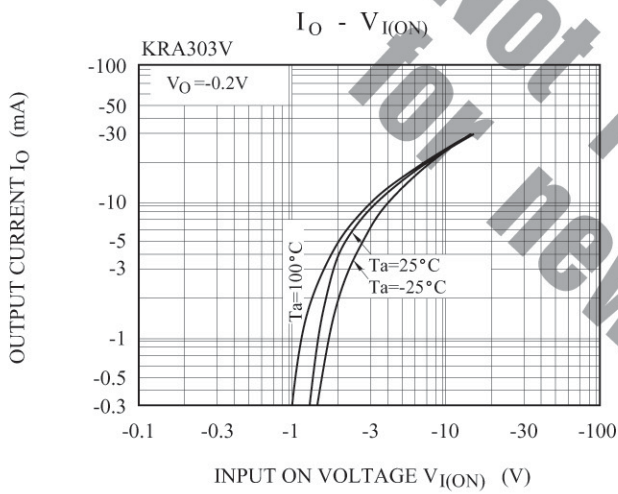
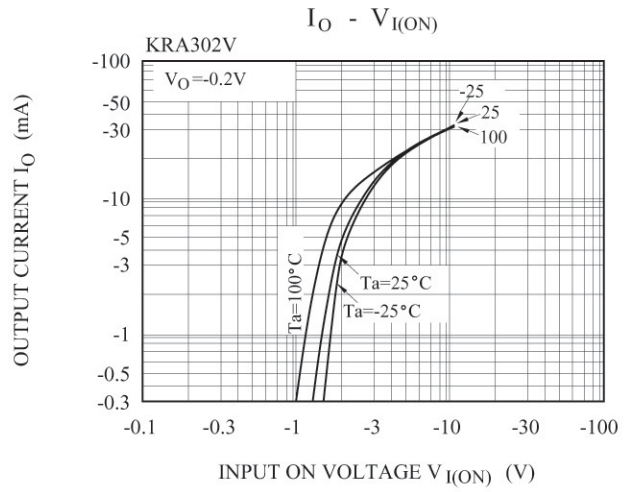
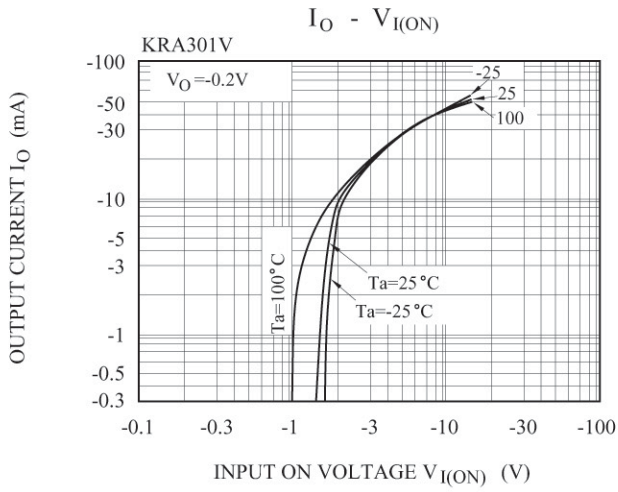
Note : * Characteristic of Transistor Only.

KRA301V~KRA306V

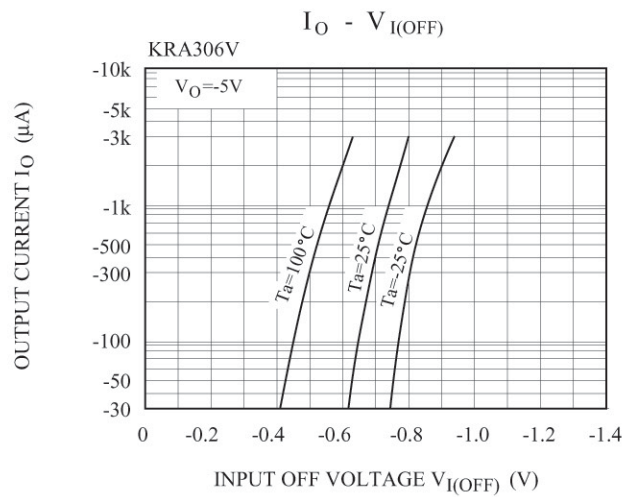
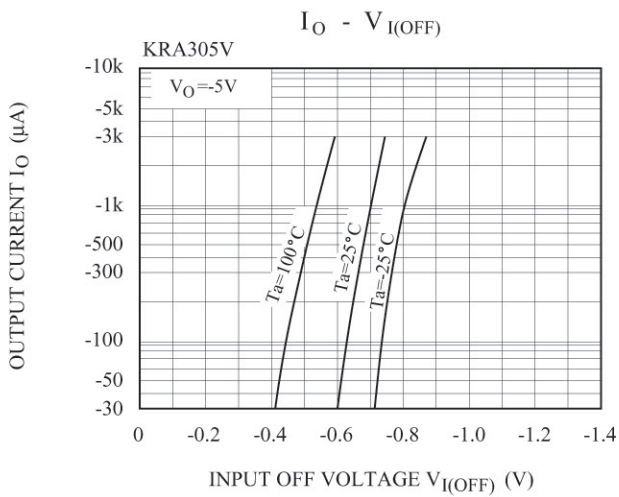
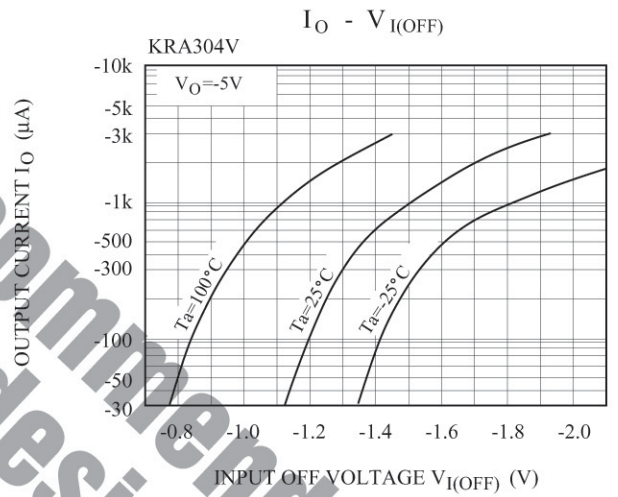
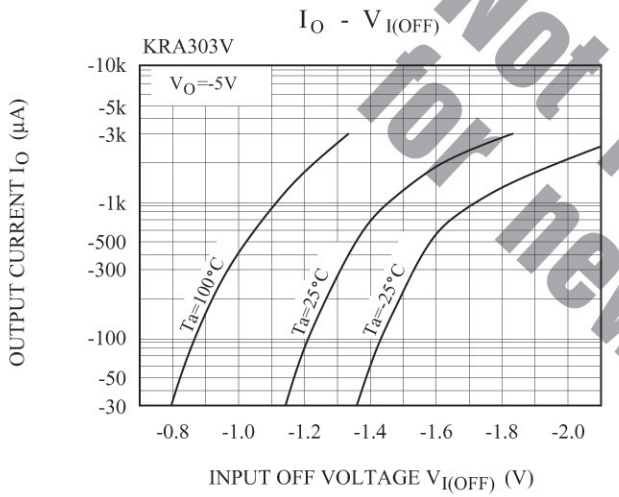
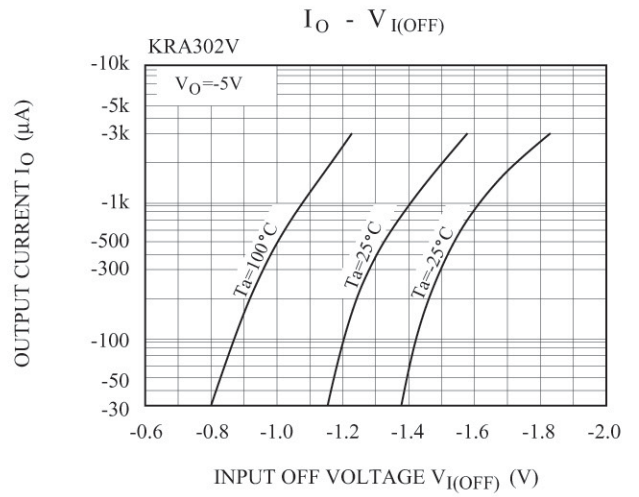
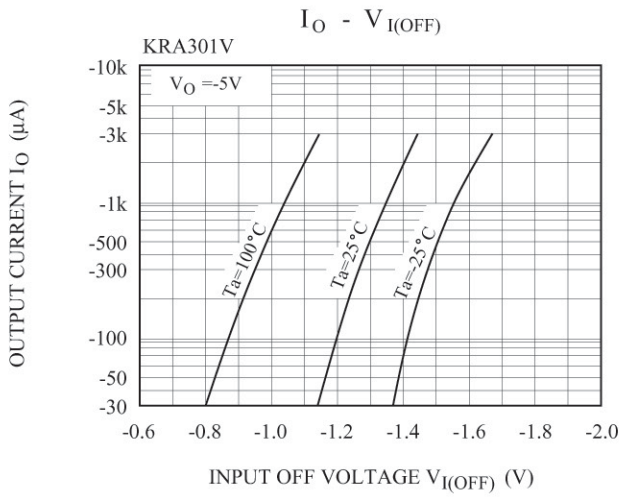
ELECTRICAL CHARACTERISTICS (Ta=25°C)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Switching Time	Rise Time	KRA301V	V _O =-5V V _{IN} =-5V R _L =1kΩ	-	0.07	-	μS
		KRA302V		-	0.06	-	
		KRA303V		-	0.2	-	
		KRA304V		-	0.24	-	
		KRA305V		-	0.02	-	
		KRA306V		-	0.07	-	
	Storage Time	KRA301V		-	1.1	-	
		KRA302V		-	1.1	-	
		KRA303V		-	1.1	-	
		KRA304V		-	1.1	-	
		KRA305V		-	1.1	-	
		KRA306V		-	1.1	-	
	Fall Time	KRA301V		-	0.15	-	
		KRA302V		-	0.24	-	
		KRA303V		-	0.38	-	
		KRA304V		-	0.63	-	
		KRA305V		-	0.1	-	
		KRA306V		-	0.2	-	

KRA301V~KRA306V

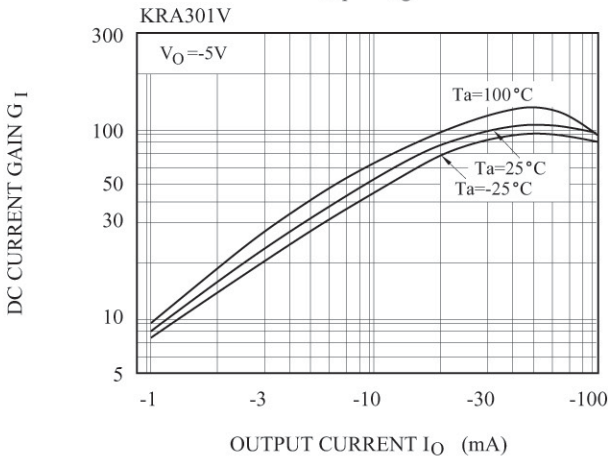


KRA301V~KRA306V

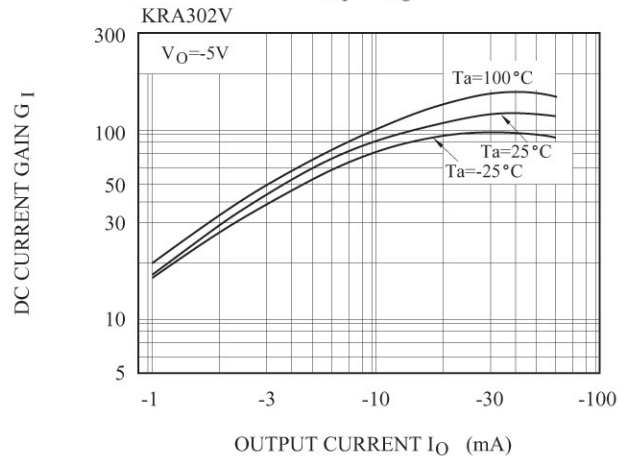


KRA301V~KRA306V

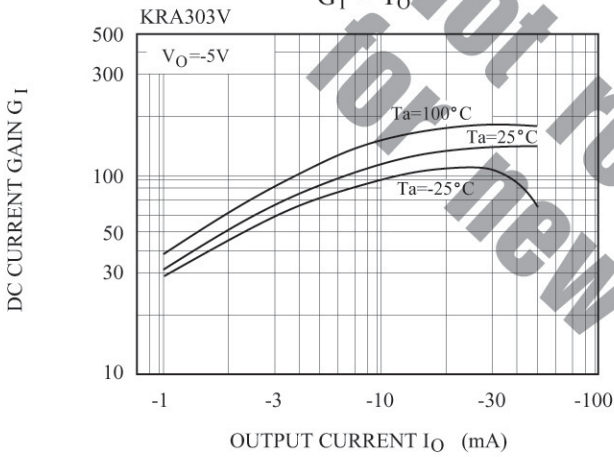
$G_I - I_O$



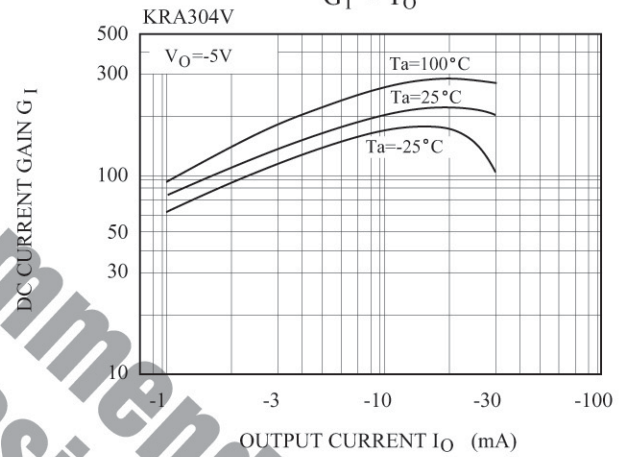
$G_I - I_O$



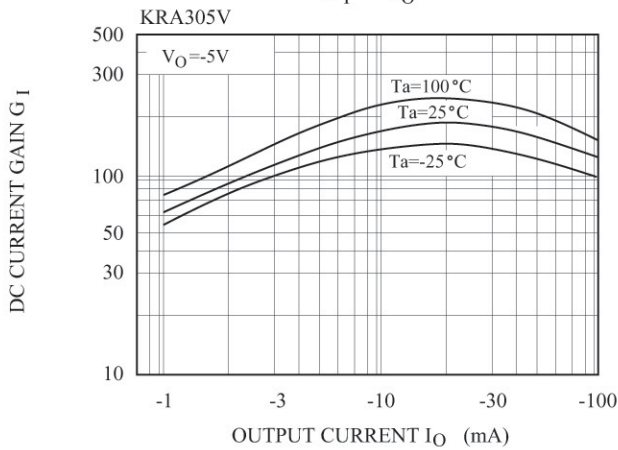
$G_I - I_O$



$G_I - I_O$



$G_I - I_O$



$G_I - I_O$

