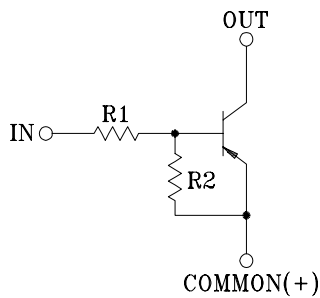


SWITCHING APPLICATION.
INTERFACE CIRCUIT AND DRIVER CIRCUIT APPLICATION.

FEATURES

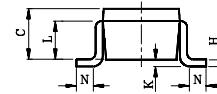
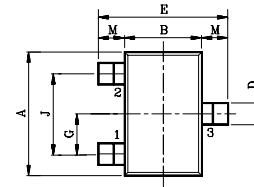
- With Built-in Bias Resistors.
- Simplify Circuit Design.
- Reduce a Quantity of Parts and Manufacturing Process.
- High Packing Density.

EQUIVALENT CIRCUIT



BIAS RESISTOR VALUES

TYPE NO.	R1(k Ω)	R2(k Ω)
KRA301	4.7	4.7
KRA302	10	10
KRA303	22	22
KRA304	47	47
KRA305	2.2	47
KRA306	4.7	47



1. COMMON (EMITTER)
2. IN (BASE)
3. OUT (COLLECTOR)

DIM	MILLIMETERS
A	2.00 \pm 0.20
B	1.25 \pm 0.15 -0.15
C	0.90 \pm 0.10
D	0.35 \pm 0.10 -0.05
E	2.10 \pm 0.20
G	0.85
H	0.15 \pm 0.10 -0.06
J	1.30
K	0.00-0.10
L	0.70
M	0.42 \pm 0.10
N	0.10 MIN

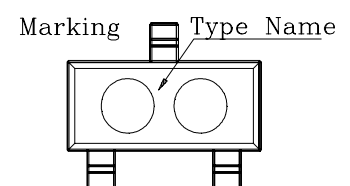
USM

MAXIMUM RATINGS (Ta=25°C)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Output Voltage	KRA301 ~306	V _O	-50	V
Input Voltage	KRA301	V _I	-20, 10	V
	KRA302		-30, 10	
	KRA303		-40, 10	
	KRA304		-40, 10	
	KRA305		-12, 5	
	KRA306		-20, 5	
Output Current	KRA301 ~306	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

TYPE	KRA301	KRA302	KRA303	KRA304	KRA305	KRA306
MARK	PA	PB	PC	PD	PE	PF



KRA301 ~ KRA306

ELECTRICAL CHARACTERISTICS (Ta=25°C)

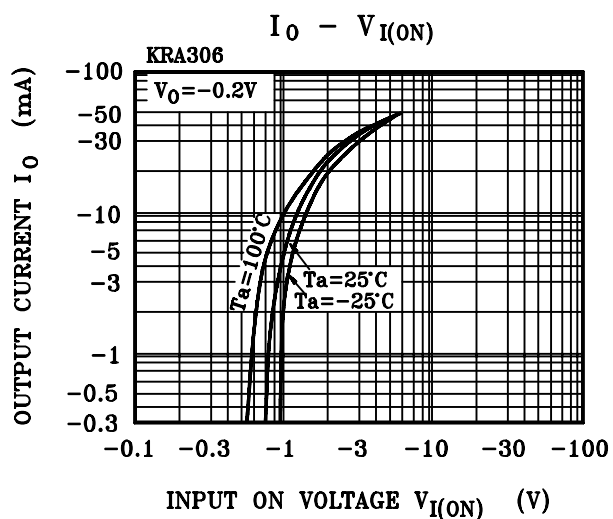
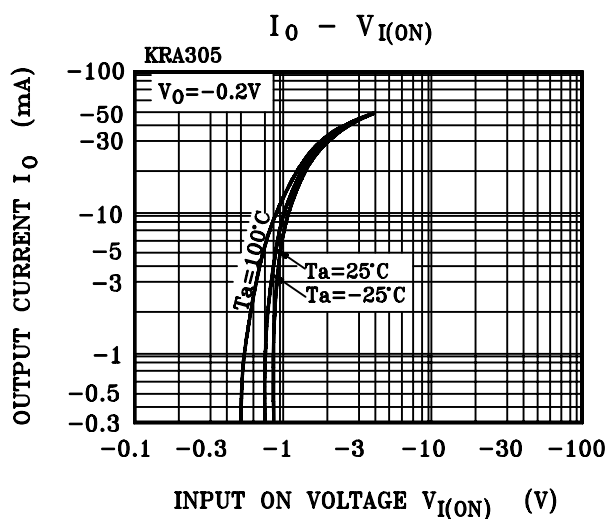
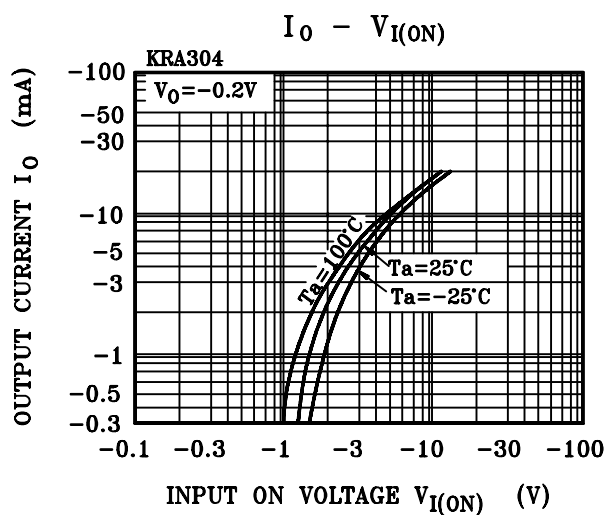
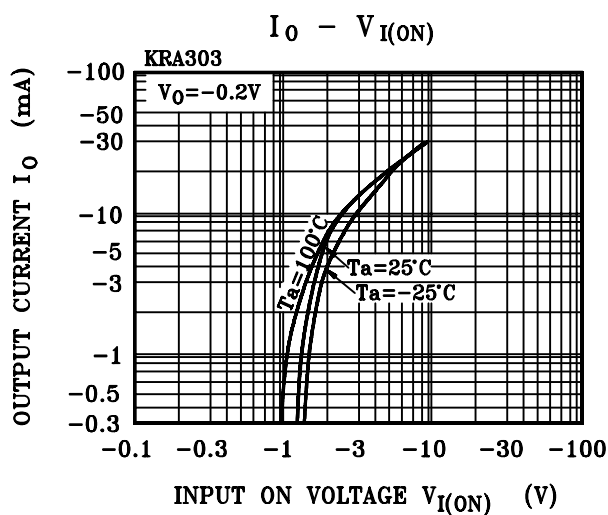
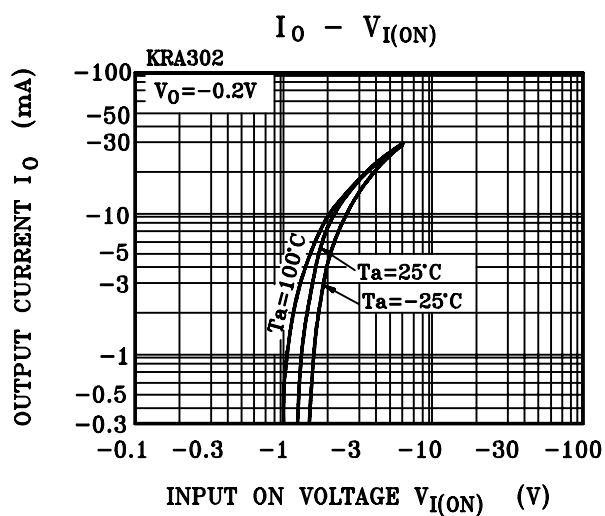
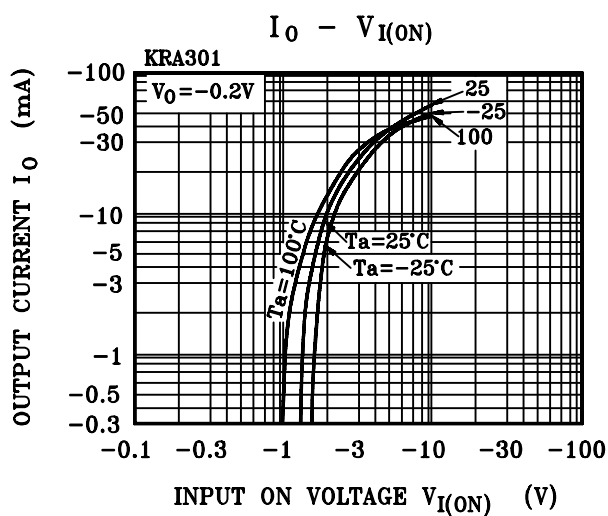
CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Output Cut-off Current	KRA301 ~ 306	$I_{O(OFF)}$	$V_O = -50V, V_I = 0$	-	-	-500	nA
DC Current Gain	KRA301	G_I	$V_O = -5V, I_O = -10mA$	30	55	-	
	KRA302			50	80	-	
	KRA303			70	120	-	
	KRA304			80	200	-	
	KRA305			80	200	-	
	KRA306			80	200	-	
Output Voltage	KRA301 ~ 306	$V_{O(ON)}$	$I_O = -10mA, I_I = -0.5mA$	-	-0.1	-0.3	V
Input Voltage (ON)	KRA301	$V_{I(ON)}$	$V_O = -0.2V, I_O = -5mA$	-	-1.5	-2.0	V
	KRA302			-	-1.8	-2.4	
	KRA303			-	-2.1	-3.0	
	KRA304			-	-2.8	-5.0	
	KRA305			-	-0.8	-1.1	
	KRA306			-	-0.9	-1.3	
Input Voltage (OFF)	KRA301 ~ 304	$V_{I(OFF)}$	$V_O = -5V, I_O = -0.1mA$	-1.0	-1.2	-	V
	KRA305 ~ 306			-0.5	-0.65	-	
Transition Frequency	KRA301 ~ 306	$f_T *$	$V_O = -10V, I_O = -5mA$	-	200	-	MHz
Input Current	KRA301	I_I	$V_I = -5V$	-	-	-1.8	mA
	KRA302			-	-	-0.88	
	KRA303			-	-	-0.36	
	KRA304			-	-	-0.18	
	KRA305			-	-	-3.6	
	KRA306			-	-	-1.8	

Note : *Characteristic of Transistor Only

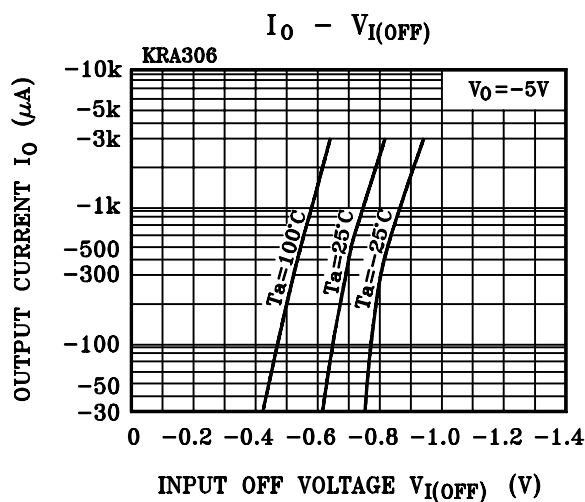
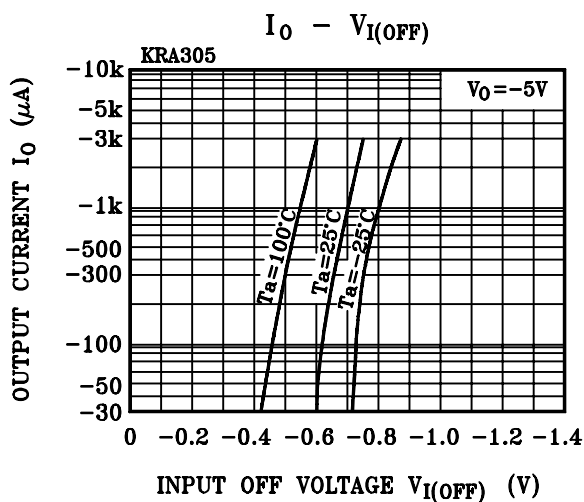
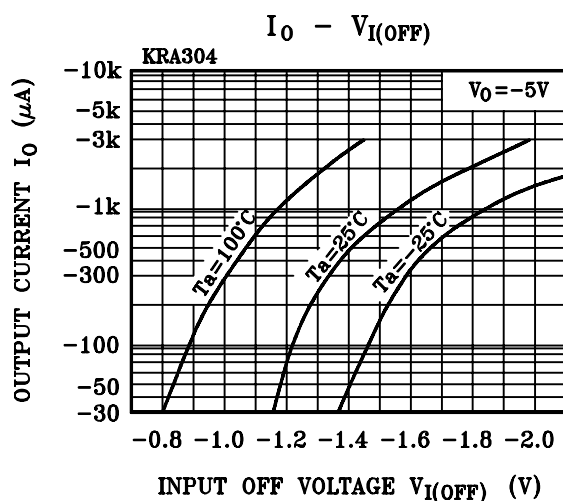
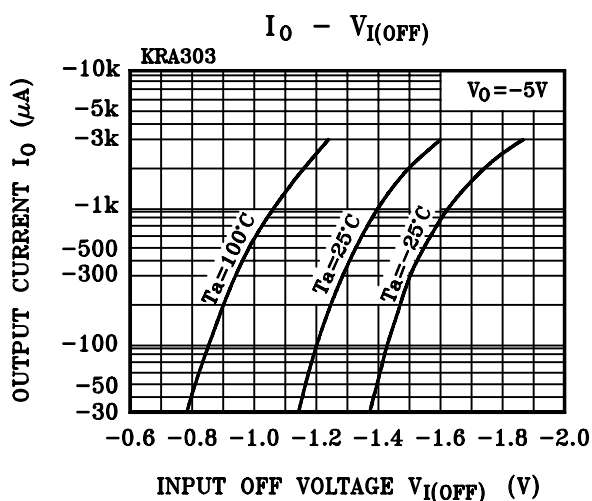
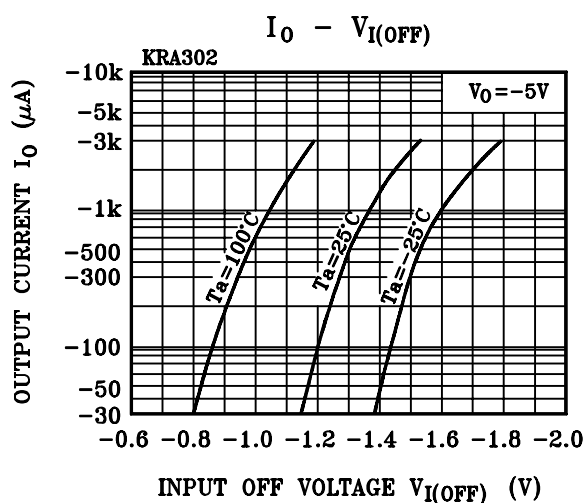
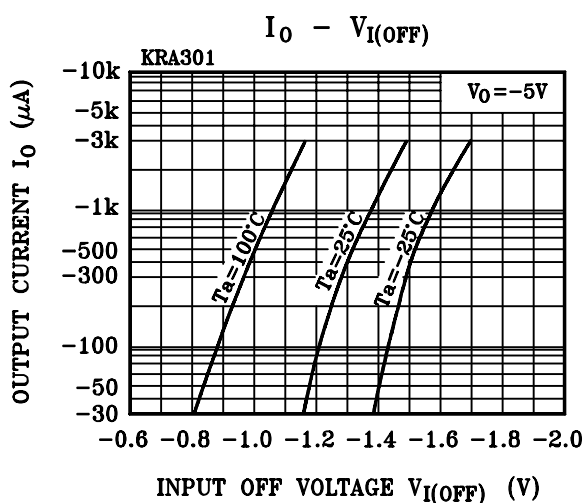
KRA301 ~ KRA306

ELECTRICAL CHARACTERISTICS (Ta=25°C)

CHARACTERISTIC			SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Switching Time	Rise Time	KRA301	t _r	V _O =-5V V _{IN} =-5V R _L =1kΩ	-	0.07	-	μS
		KRA302			-	0.06	-	
		KRA303			-	0.2	-	
		KRA304			-	0.24	-	
		KRA305			-	0.02	-	
		KRA306			-	0.07	-	
	Storage Time	KRA301	t _{stg}		-	1.1	-	
		KRA302			-	1.1	-	
		KRA303			-	1.1	-	
		KRA304			-	1.1	-	
		KRA305			-	1.1	-	
		KRA306			-	1.1	-	
	Fall Time	KRA301	t _f		-	0.15	-	
		KRA302			-	0.24	-	
		KRA303			-	0.38	-	
		KRA304			-	0.63	-	
		KRA305			-	0.1	-	
		KRA306			-	0.2	-	



KRA301 ~ KRA306



KRA301 ~ KRA306

