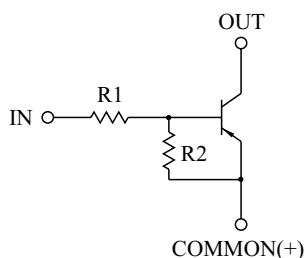


SWITCHING APPLICATION.
INTERFACE CIRCUIT AND DRIVER CIRCUIT APPLICATION.

FEATURES

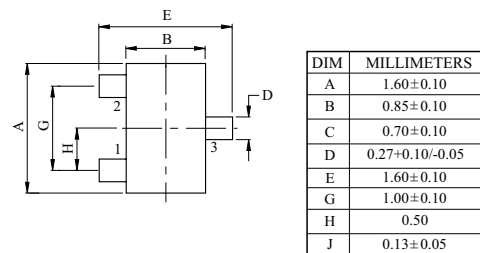
- With Built-in Bias Resistors
- Simplify Circuit Design
- Reduce a Quantity of Parts and Manufacturing Process
- High Packing Density.

EQUIVALENT CIRCUIT



BIAS RESISTOR VALUES

TYPE NO.	R1(k Ω)	R2(k Ω)
KRA307E	10	47
KRA308E	22	47
KRA309E	47	22



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

ESM

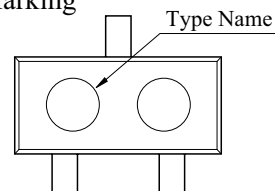
MAXIMUM RATING (Ta=25℃)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Output Voltage	KRA307E ~309E	V _O	-50	V
Input Voltage	KRA307E	V _I	-30, 6	V
	KRA308E		-40, 7	
	KRA309E		-40, 15	
Output Current	KRA307E ~309E	I _O	-100	mA
Power Dissipation		P _D	100	mW
Junction Temperature		T _j	150	℃
Storage Temperature Range		T _{stg}	-55 ~ 150	℃

MARK SPEC

TYPE	KRA307E	KRA308E	KRA309E
MARK	PH	PI	PJ

Marking



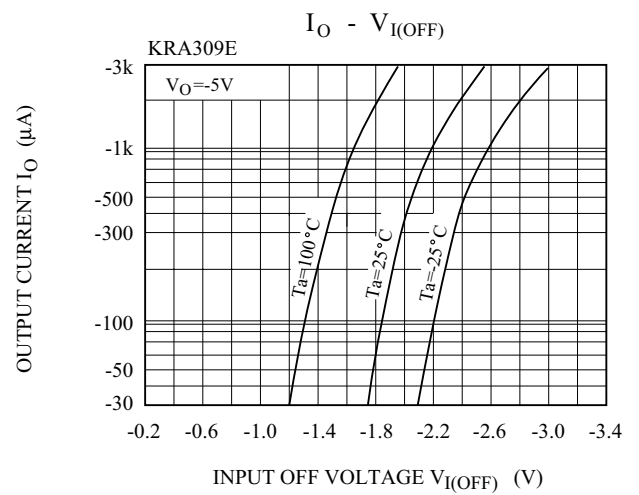
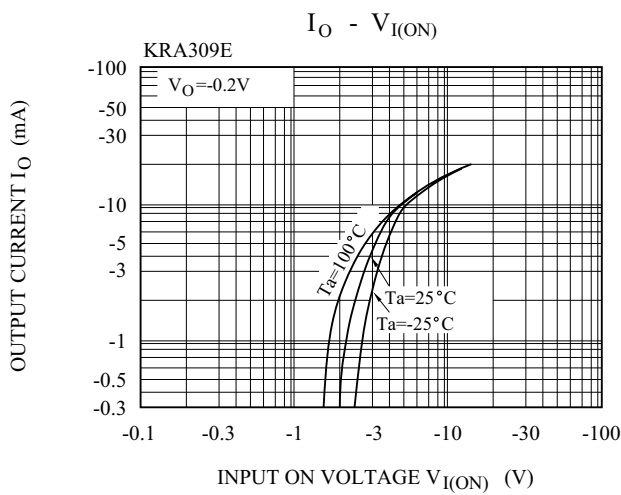
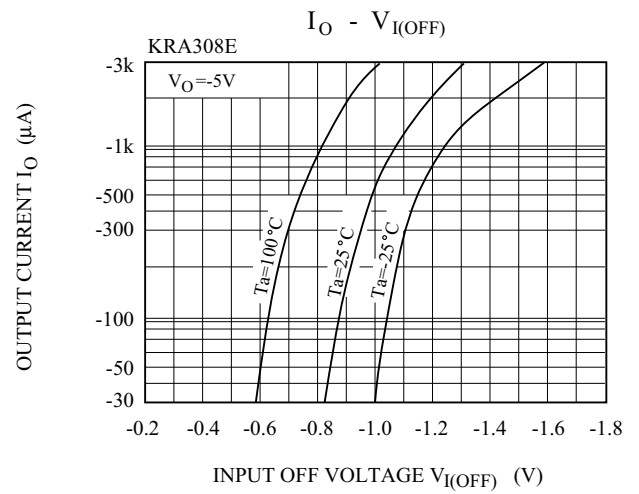
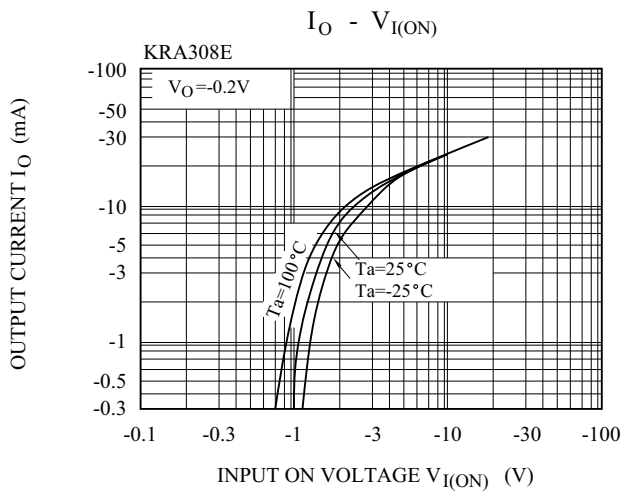
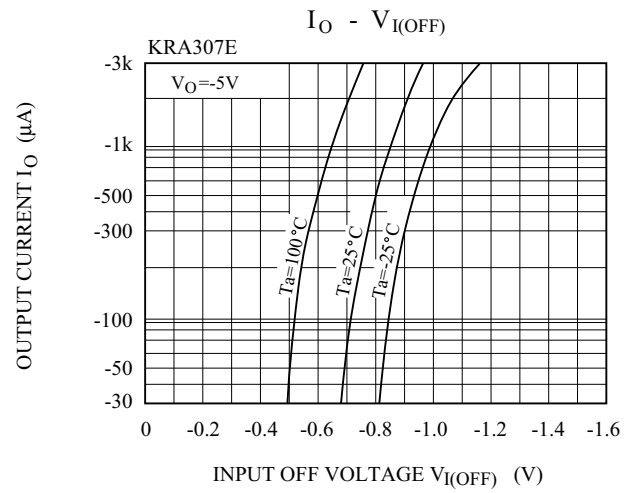
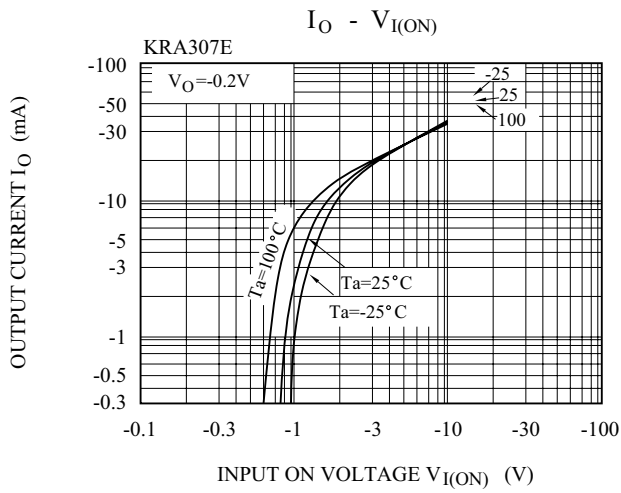
KRA307E~KRA309E

ELECTRICAL CHARACTERISTICS (Ta=25 °C)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Output Cut-off Current	KRA307E ~309E	$I_{O(OFF)}$	$V_O=-50V, V_I=0$	-	-	-500	nA
DC Current Gain	KRA307E	G_I	$V_O=-5V, I_O=-10mA$	80	150	-	
	KRA308E			80	150	-	
	KRA309E			70	140	-	
Output Voltage	KRA307E ~309E	$V_{O(ON)}$	$I_O=-10mA, I_I=-0.5mA$	-	-0.1	-0.3	V
Input Voltage (ON)	KRA307E	$V_{I(ON)}$	$V_O=-0.2V, I_O=-5mA$	-	-1.2	-1.8	V
	KRA308E			-	-1.8	-2.6	
	KRA309E			-	-3.0	-5.8	
Input Voltage (OFF)	KRA307E	$V_{I(OFF)}$	$V_O=-5V, I_O=-0.1mA$	-0.5	-0.75	-	V
	KRA308E			-0.6	-0.88	-	
	KRA309E			-1.5	-1.82	-	
Transition Frequency	KRA307E ~309E	f_T^*	$V_O=-10V, I_O=-5mA$	-	200	-	MHz
Input Current	KRA307E	I_I	$V_I=-5V$	-	-	-0.88	mA
	KRA308E			-	-	-0.36	
	KRA309E			-	-	-0.16	
Switching Time	Rise Time	KRA307E	$V_O=-5V, V_{IN}=-5V$ $R_L=1k\Omega$	-	0.07	-	μS
		KRA308E		-	0.20	-	
		KRA309E		-	0.38	-	
	Storage Time	KRA307E		-	1.1	-	
		KRA308E		-	1.3	-	
		KRA309E		-	0.7	-	
	Fall Time	KRA307E		-	0.35	-	
		KRA308E		-	0.4	-	
		KRA309E		-	0.48	-	

Note : * Characteristic of Transistor Only.

KRA307E~KRA309E



KRA307E~KRA309E

