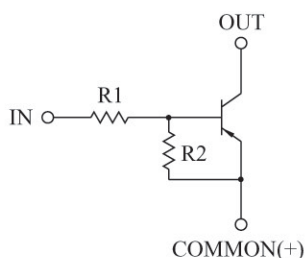


SWITCHING APPLICATION.
INTERFACE CIRCUIT AND DRIVER CIRCUIT APPLICATION.

FEATURES

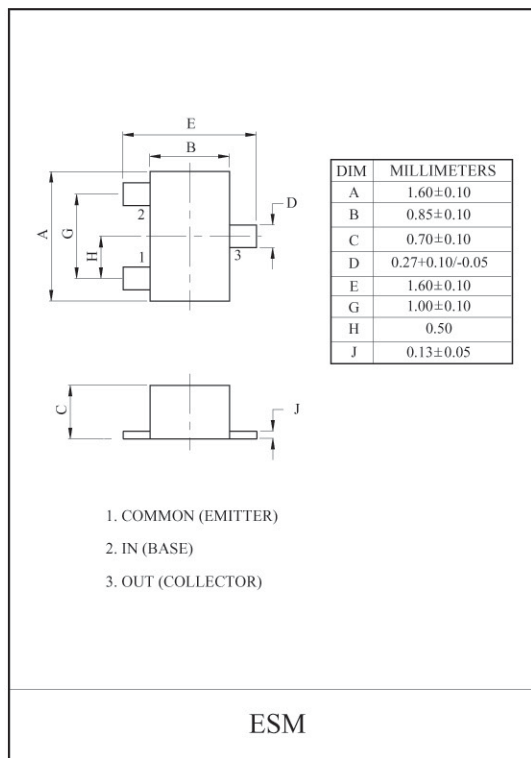
- With Built-in Bias Resistors
- Simplify Circuit Design
- Reduce a Quantity of Parts and Manufacturing Process
- High Packing Density.

EQUIVALENT CIRCUIT



BIAS RESISTOR VALUES

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

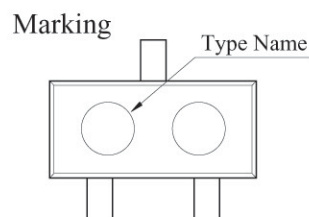


MAXIMUM RATING (Ta=25°C)

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	°C
Storage Temperature Range		T_{stg}	-55 ~ 150	°C

MARK SPEC

TYPE	KRA307E	KRA308E	KRA309E
MARK	PH	PI	PJ



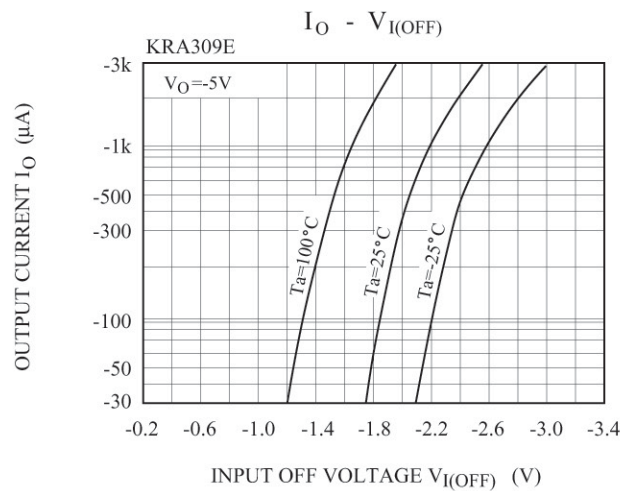
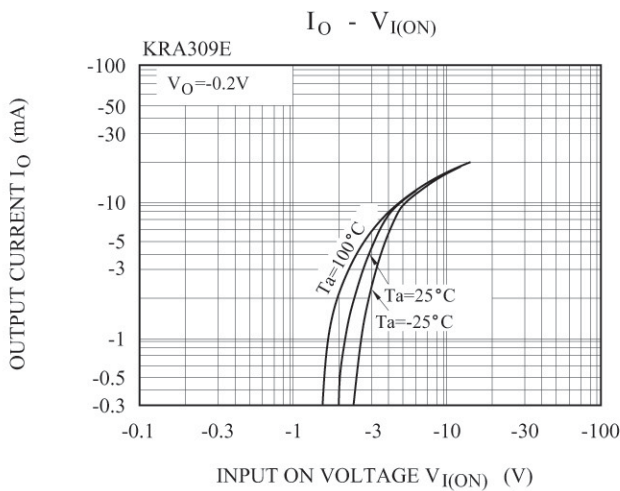
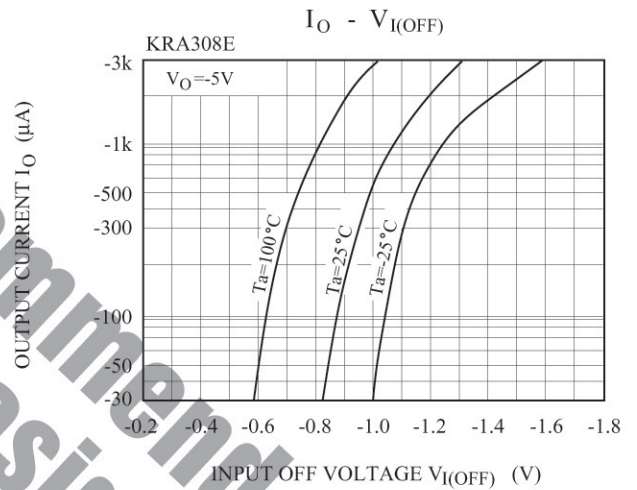
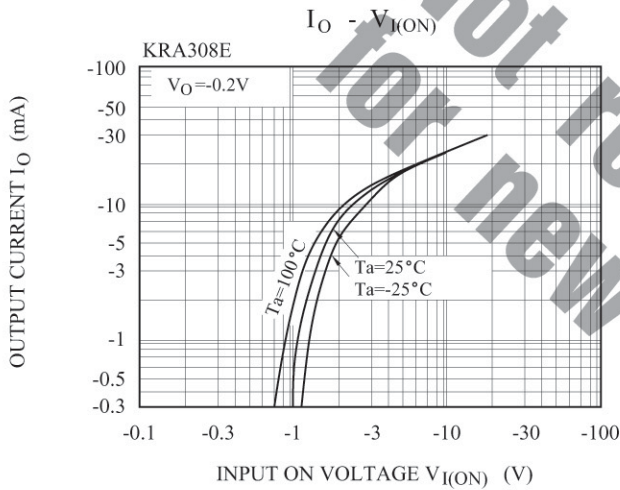
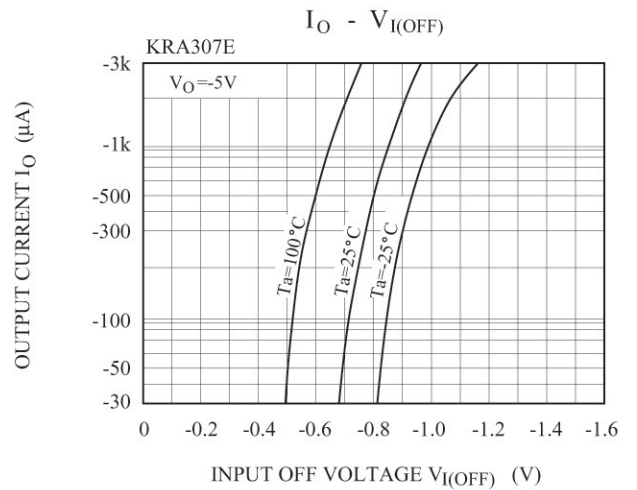
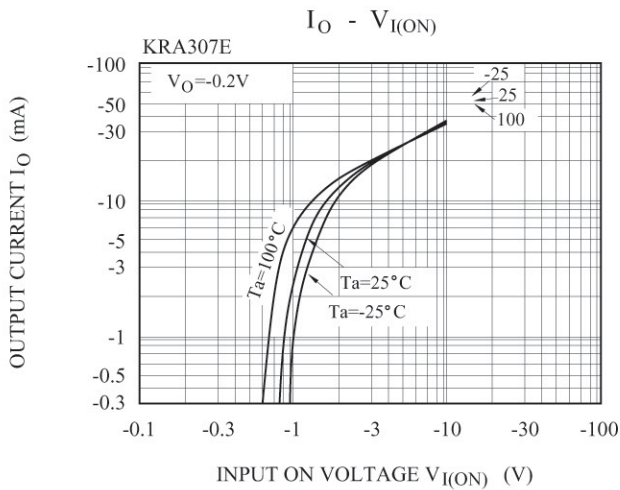
KRA307E~KRA309E

ELECTRICAL CHARACTERISTICS (Ta=25°C)

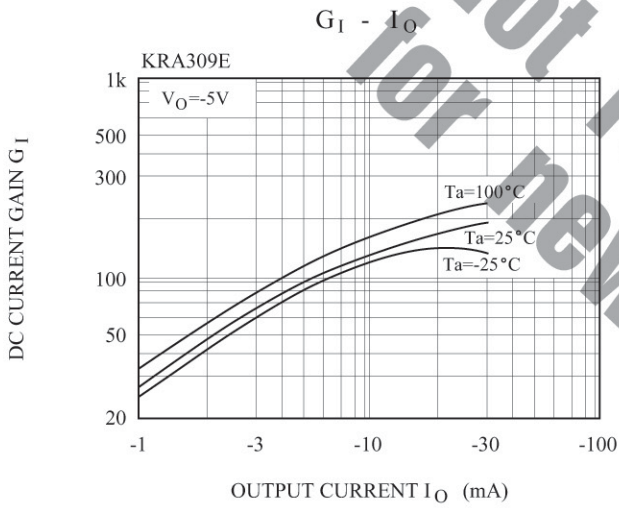
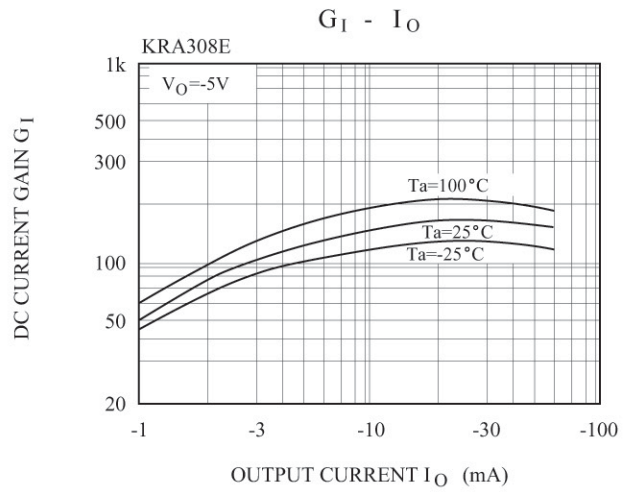
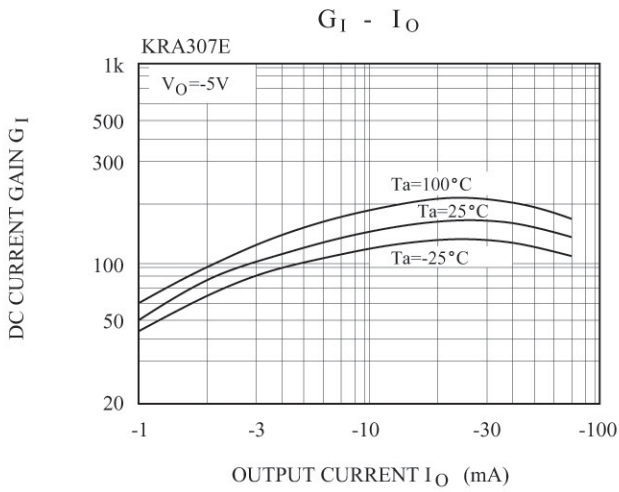
CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT	
Output Cut-off Current		KRA307E ~ 309E	$I_{O(OFF)}$	$V_O=-50V, V_I=0$	-	-	-500	nA
DC Current Gain	KRA307E		G_I	$V_O=-5V, I_O=-10mA$	80	150	-	
	KRA308E				80	150	-	
	KRA309E				70	140	-	
Output Voltage		KRA307E ~ 309E	$V_{O(ON)}$	$I_O=-10mA, I_I=-0.5mA$	-	-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	t_r	$V_O=-5V, V_{IN}=-5V$ $R_L=1k\Omega$	-	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	-	
Input Resistor	KRA307E		R1	-	7	10	13	k Ω
	KRA308E				15.4	22	28.6	
	KRA309E				32.9	47	61.1	
Resistor Ratio	KRA307E		R2/R1	-	3.7	4.7	5.7	
	KRA308E				1.7	2.1	2.6	
	KRA309E				0.37	0.47	0.57	

Note : * Characteristic of Transistor Only.

KRA307E~KRA309E



KRA307E~KRA309E



Not recommended for new design