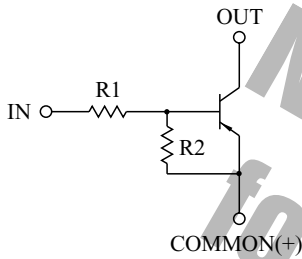


SWITCHING APPLICATION.
INTERFACE CIRCUIT AND DRIVER CIRCUIT APPLICATION.

FEATURES

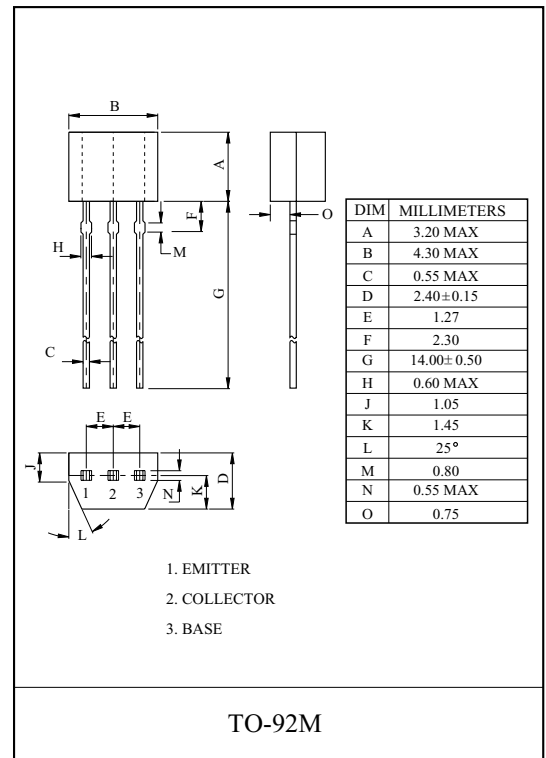
- With Built-in Bias Resistors.
- Simplify Circuit Design.
- Reduce a Quantity of Parts and Manufacturing Process.

EQUIVALENT CIRCUIT



BIAS RESISTOR VALUES

TYPE NO.	R1(k)	R2(k)
KRA101M	4.7	4.7
KRA102M	10	10
KRA103M	22	22
KRA104M	47	47
KRA105M	2.2	47
KRA106M	4.7	47



MAXIMUM RATING (Ta=25)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Output Voltage	KRA101M 106M	V_o	-50	V
Input Voltage	KRA101M	V_i	-20, 10	V
	KRA102M		-30, 10	
	KRA103M		-40, 10	
	KRA104M		-40, 10	
	KRA105M		-12, 5	
	KRA106M		-20, 5	
Output Current	KRA101M 106M	I_o	-100	mA
Power Dissipation		P_D	400	mW
Junction Temperature		T_j	150	
Storage Temperature Range		T_{stg}	-55 150	

KRA101M~KRA106M

ELECTRICAL CHARACTERISTICS (Ta=25 °C)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Output Cut-off Current	KRA101M 106M	$I_{O(OFF)}$	$V_O=-50V, V_I=0$	-	-	-500	nA
DC Current Gain	KRA101M	G_I	$V_O=-5V, I_O=-10mA$	30	55	-	
	KRA102M			50	80	-	
	KRA103M			70	120	-	
	KRA104M			80	200	-	
	KRA105M			80	200	-	
	KRA106M			80	200	-	
Output Voltage	KRA101M 106M	$V_{O(ON)}$	$I_O=-10mA, I_I=-0.5mA$	-	-0.1	-0.3	V
Input Voltage (ON)	KRA101M	$V_{I(ON)}$	$V_O=-0.2V, I_O=-5mA$	-	-1.5	-2.0	V
	KRA102M			-	-1.8	-2.4	
	KRA103M			-	-2.1	-3.0	
	KRA104M			-	-2.8	-5.0	
	KRA105M			-	-0.8	-1.1	
	KRA106M			-	-0.9	-1.3	
Input Voltage (OFF)	KRA101M 104M	$V_{I(OFF)}$	$V_O=-5V, I_O=-0.1mA$	-1.0	-1.2	-	V
	KRA105M 106M			-0.5	-0.65	-	
Transition Frequency	KRA101M 106M	f_T^*	$V_O=-10V, I_O=-5mA$	-	200	-	MHz
Input Current	KRA101M	I_I	$V_I=-5V$	-	-	-1.8	mA
	KRA102M			-	-	-0.88	
	KRA103M			-	-	-0.36	
	KRA104M			-	-	-0.18	
	KRA105M			-	-	-3.6	
	KRA106M			-	-	-1.8	
Input Resistor	KRA101M	R1	-	3.29	4.7	6.11	k
	KRA102M			7	10	13	
	KRA103M			15.4	22	28.6	
	KRA104M			32.9	47	61.1	
	KRA105M			1.54	2.2	2.86	
	KRA106M			3.29	4.7	6.11	
Resistor Ratio	KRA101M~104M	R2/R1	-	0.8	1.0	1.2	
	KRA105M			17	21	26	
	KRA106M			8	10	12	

Note : *Characteristic of Transistor Only

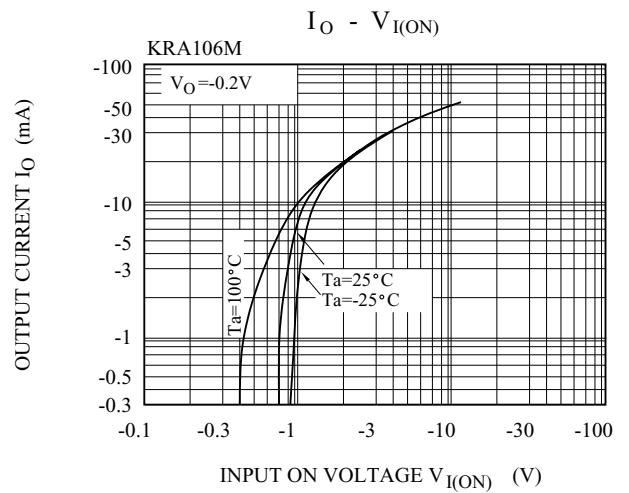
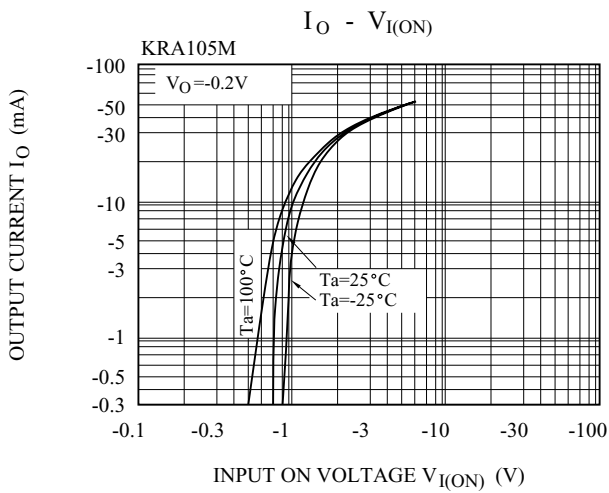
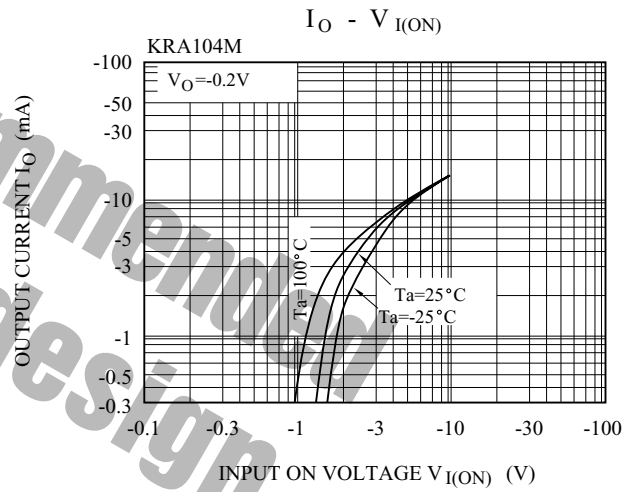
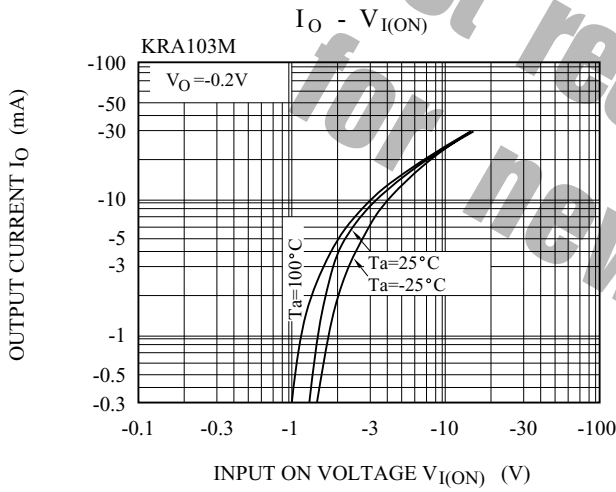
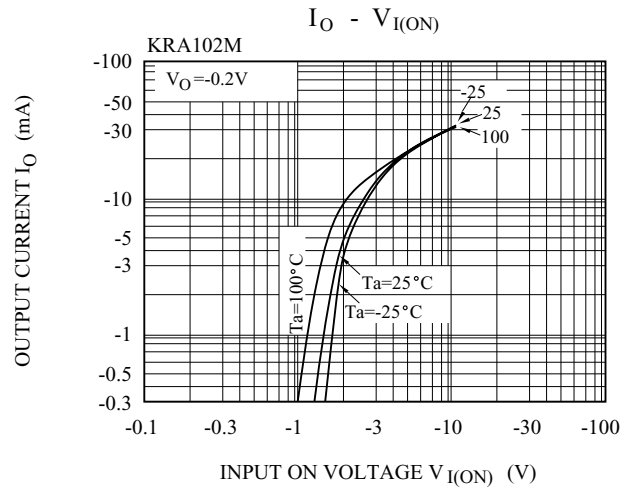
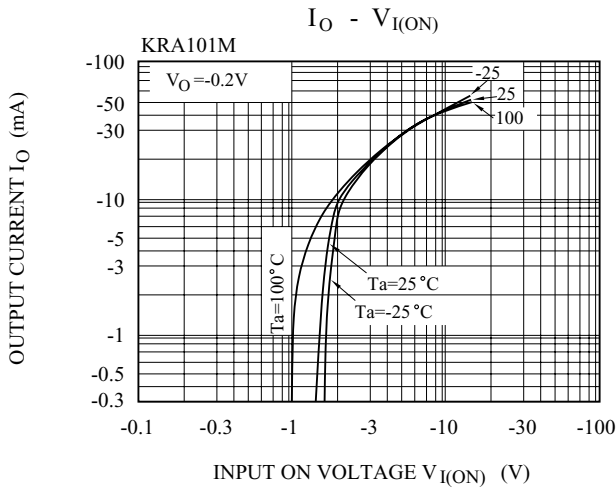
KRA101M~KRA106M

ELECTRICAL CHARACTERISTICS (Ta=25)

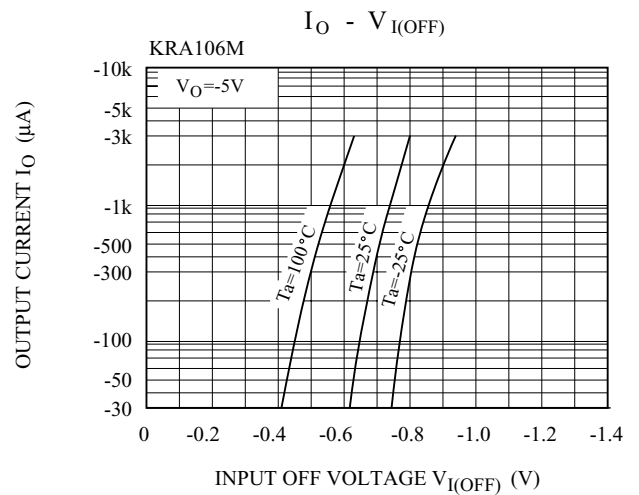
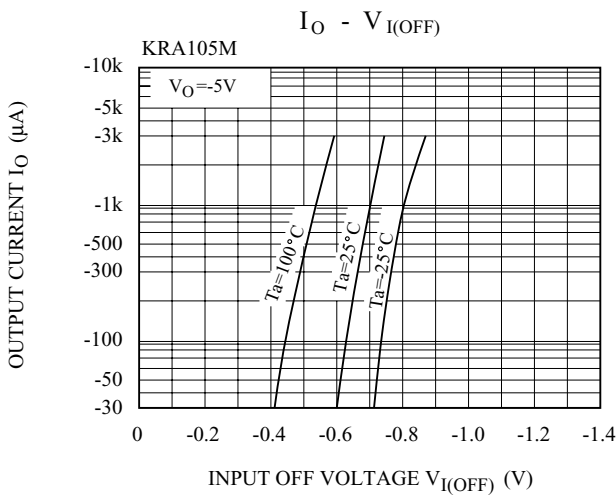
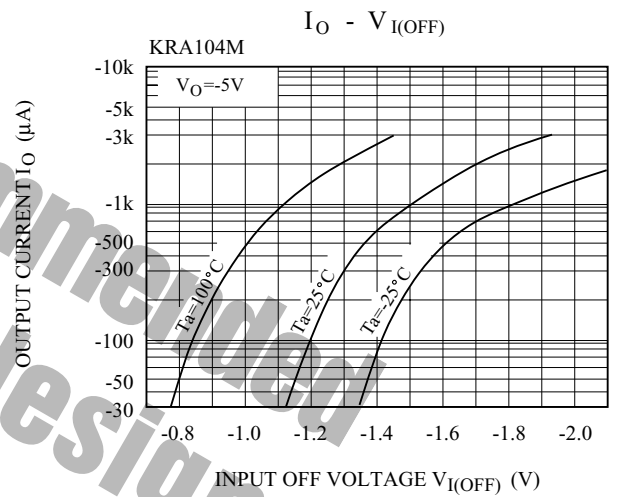
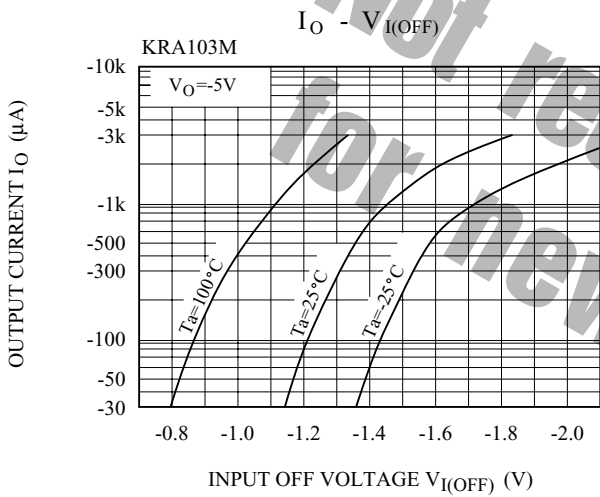
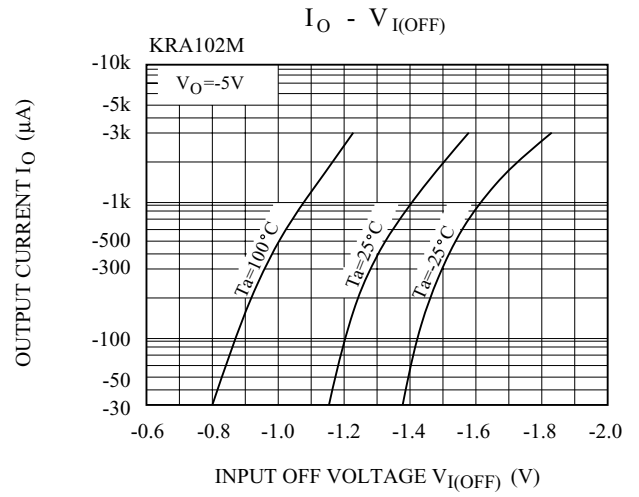
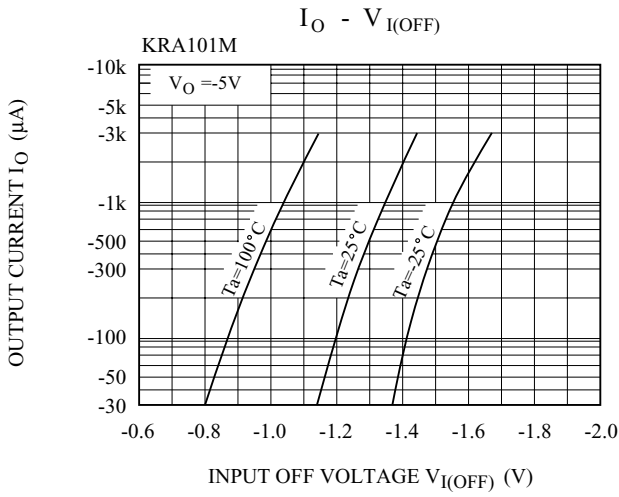
CHARACTERISTIC			SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT	
Switching Time	Rise Time	KRA101M	t_r	$V_O = -5V$ $V_{IN} = -5V$ $R_L = 1k$	-	0.07	-	μs	
		KRA102M			-	0.06	-		
		KRA103M			-	0.2	-		
		KRA104M			-	0.24	-		
		KRA105M			-	0.02	-		
		KRA106M			-	0.07	-		
	Storage Time	KRA101M	t_{stg}		-	1.1	-		
		KRA102M			-	1.1	-		
		KRA103M			-	1.1	-		
		KRA104M			-	1.1	-		
		KRA105M			-	1.1	-		
		KRA106M			-	1.1	-		
	Fall Time	Fall Time	KRA101M		t_f	-	0.15		-
			KRA102M			-	0.24		-
			KRA103M			-	0.38		-
			KRA104M			-	0.63		-
			KRA105M			-	0.1		-
			KRA106M			-	0.2		-

Not recommended for new design

KRA101M~KRA106M



KRA101M~KRA106M



KRA101M~KRA106M

