

KEC

SEMICONDUCTOR
TECHNICAL DATA

KRA736U~KRA742U

EPITAXIAL PLANAR PNP TRANSISTOR

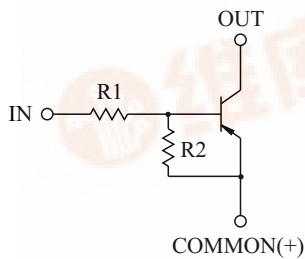
SWITCHING APPLICATION.

INTERFACE CIRCUIT AND DRIVER CIRCUIT APPLICATION

FEATURES

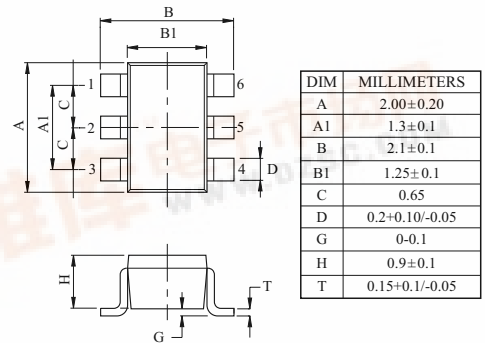
- With Built-in Bias Resistors.
- Simplify Circuit Design.
- Reduce a Quantity of Parts and Manufacturing Process.

EQUIVALENT CIRCUIT



BIAS RESISTOR VALUES

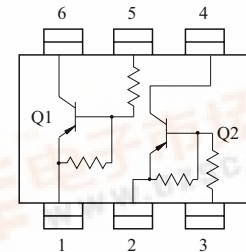
TYPE NO.	R1(k Ω)	R2(k Ω)
KRA736U	1	10
KRA737U	2.2	2.2
KRA738U	2.2	10
KRA739U	4.7	10
KRA740U	10	4.7
KRA741U	47	10
KRA742U	100	100



1. Q₁ COMMON (EMITTER)
2. Q₂ COMMON (EMITTER)
3. Q₂ IN (BASE)
4. Q₂ OUT (COLLECTOR)
5. Q₁ IN (BASE)
6. Q₁ OUT (COLLECTOR)

US6

EQUIVALENT CIRCUIT (TOP VIEW)



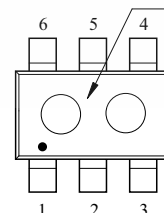
MAXIMUM RATING (Ta=25℃)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Output Voltage	KRA736U ~742U	V _O	-50	V
Input Voltage	KRA736U	V _I	-10, 5	V
	KRA737U		-12, 10	
	KRA738U		-12, 5	
	KRA739U		-20, 7	
	KRA740U		-30, 10	
	KRA741U		-40, 15	
	KRA742U		-40, 10	
Output Current	KRA736U ~742U	I _O	-100	mA
Power Dissipation		P _D *	200	mW
Junction Temperature		T _j	150	℃
Storage Temperature Range		T _{stg}	-55 ~ 150	℃

*: Total Rating.

Marking

Type Name



MARK SPEC

TYPE	KRA736U	KRA737U	KRA738U	KRA739U	KRA740U	KRA741U	KRA742U
MARK	J2	J4	J5	J6	J7	J8	J9



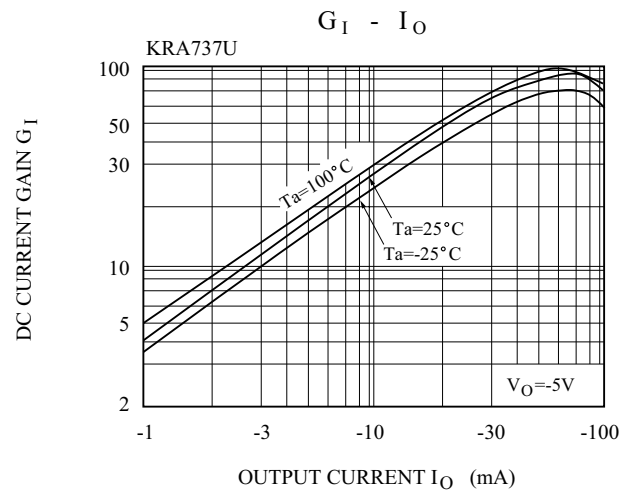
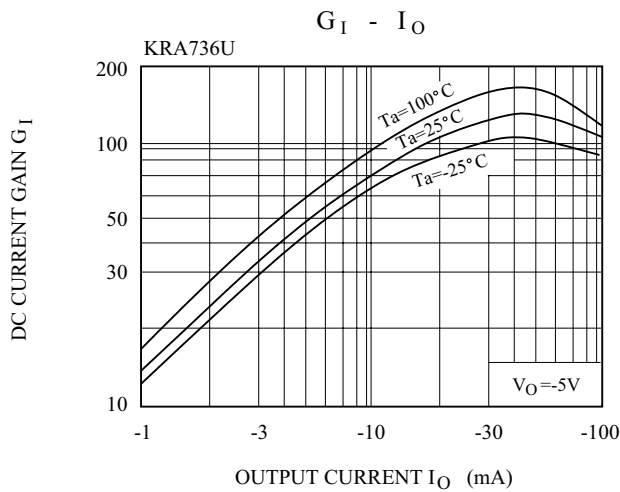
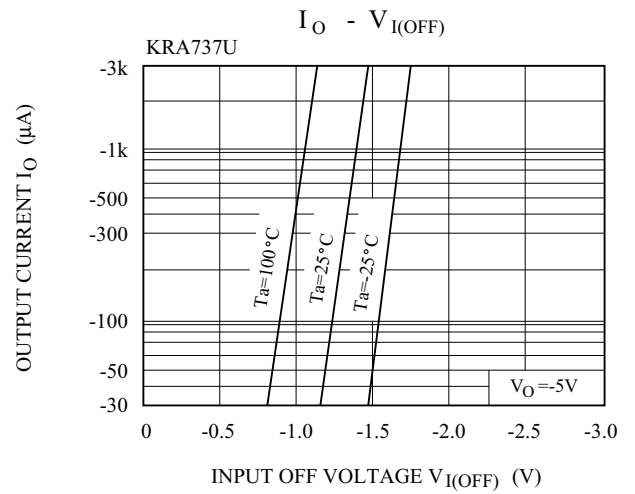
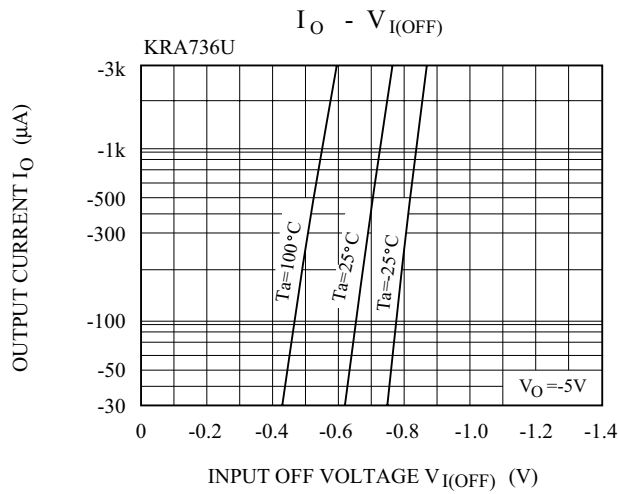
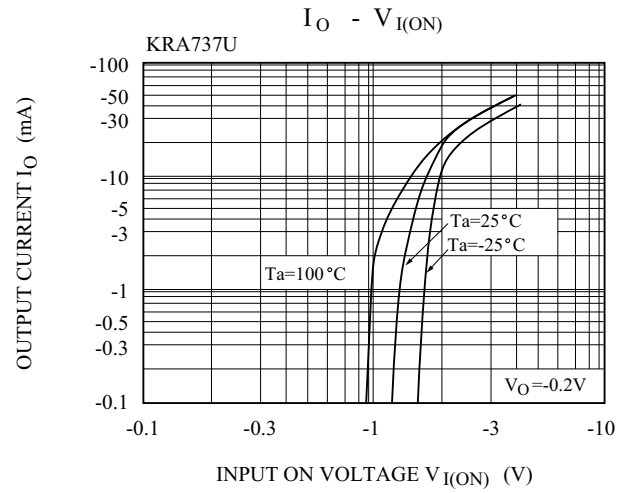
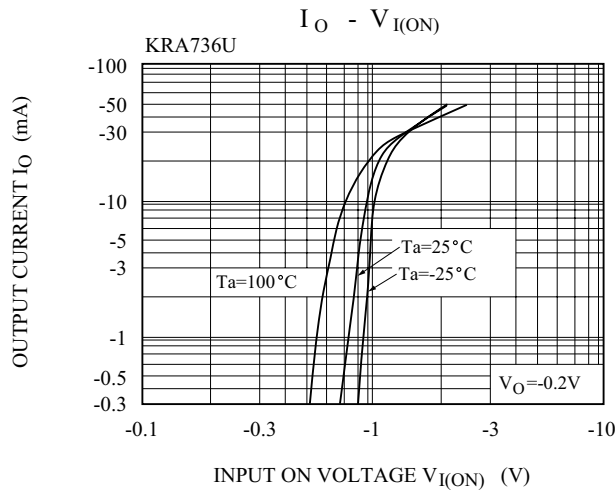
KRA736U~KRA742U

ELECTRICAL CHARACTERISTICS (Ta=25 °C)

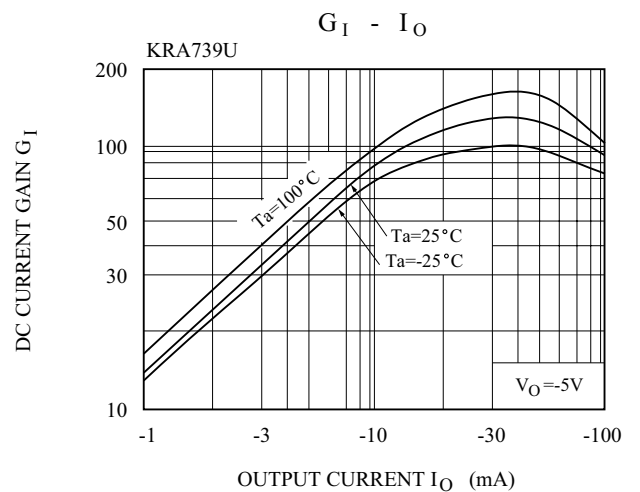
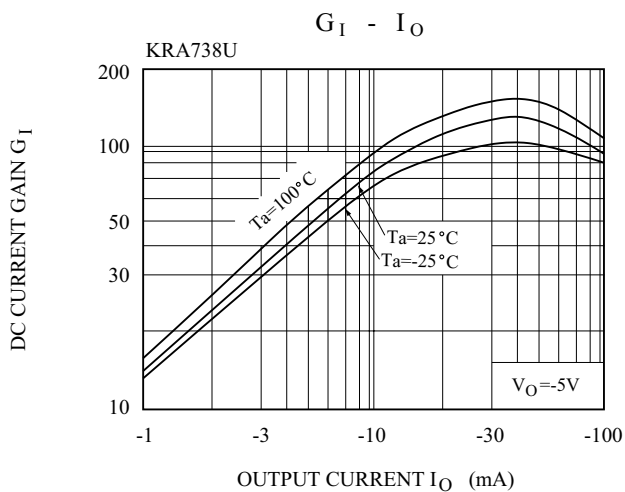
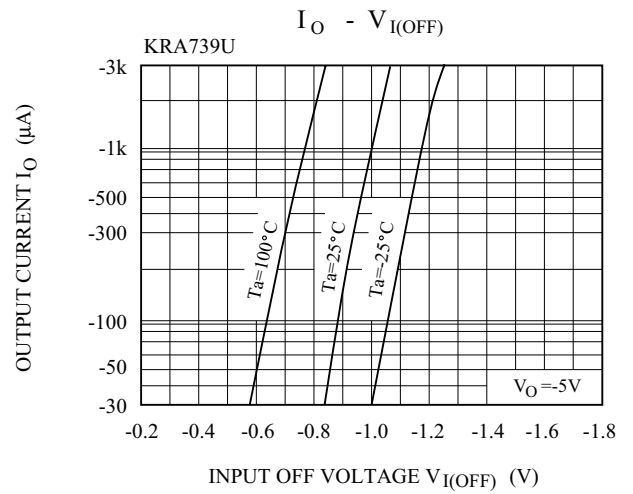
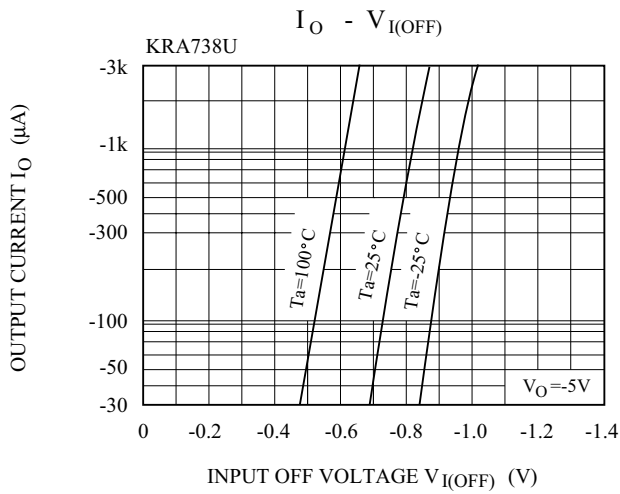
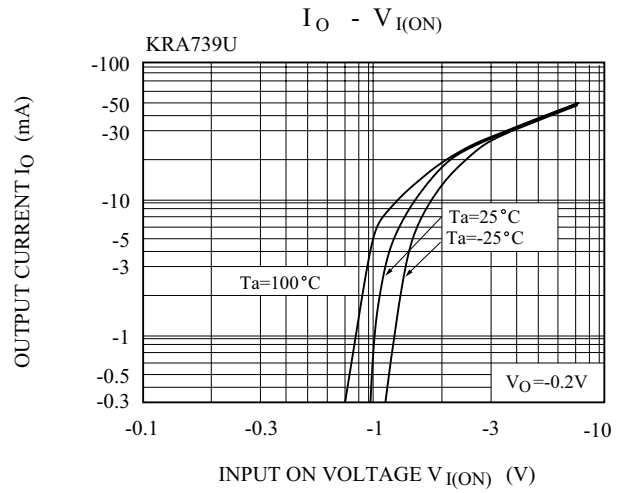
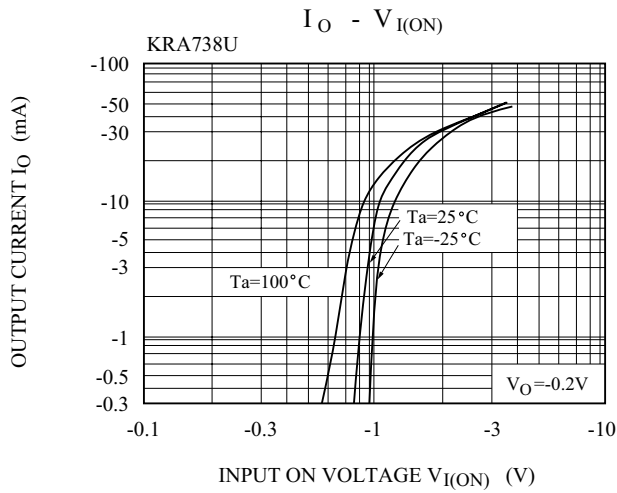
CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Output Cut-off Current	KRA736U ~ 742U	$I_{O(OFF)}$	$V_O = -50V, V_I = 0$	-	-	-500	nA
DC Current Gain	KRA736U	G_I	$V_O = -5V, I_O = -5mA$	33	-	-	
	KRA737U		$V_O = -5V, I_O = -20mA$	20	-	-	
	KRA738U		$V_O = -5V, I_O = -10mA$	33	-	-	
	KRA739U		$V_O = -5V, I_O = -10mA$	30	-	-	
	KRA740U		$V_O = -5V, I_O = -10mA$	24	-	-	
	KRA741U		$V_O = -5V, I_O = -5mA$	33	-	-	
	KRA742U		$V_O = -5V, I_O = -5mA$	62	-	-	
Output Voltage	KRA736U	$V_{O(ON)}$	$I_O = -10mA, I_I = -0.5mA$	-	-	-0.3	V
	KRA737U		$I_O = -10mA, I_I = -0.5mA$	-	-0.1	-0.3	
	KRA738U		$I_O = -10mA, I_I = -0.5mA$	-	-	-0.3	
	KRA739U		$I_O = -10mA, I_I = -0.5mA$	-	-0.1	-0.3	
	KRA740U		$I_O = -10mA, I_I = -0.5mA$	-	-0.1	-0.3	
	KRA741U		$I_O = -10mA, I_I = -0.5mA$	-	-0.1	-0.3	
	KRA742U		$I_O = -5mA, I_I = -0.25mA$	-	-0.1	-0.3	
Input Voltage (ON)	KRA736U	$V_{I(ON)}$	$V_O = -0.3V, I_O = -20mA$	-	-0.98	-3	V
	KRA737U		$V_O = -0.3V, I_O = -20mA$	-	-1.83	-3	
	KRA738U		$V_O = -0.3V, I_O = -20mA$	-	-1.22	-3	
	KRA739U		$V_O = -0.3V, I_O = -20mA$	-	-1.76	-2.5	
	KRA740U		$V_O = -0.3V, I_O = -2mA$	-	-2	-3	
	KRA741U		$V_O = -0.3V, I_O = -2mA$	-	-3.9	-5	
	KRA742U		$V_O = -0.3V, I_O = -1mA$	-	-1.64	-3	
Input Voltage (OFF)	KRA736U	$V_{I(OFF)}$	$V_{CC} = -5V, I_O = -100\mu A$	-0.3	-0.63	-	V
	KRA737U			-0.5	-1.15	-	
	KRA738U			-0.3	-0.67	-	
	KRA739U			-0.3	-0.82	-	
	KRA740U			-0.8	-1.68	-	
	KRA741U			-1	-3.09	-	
	KRA742U			-0.5	-1.17	-	
Transition Frequency	KRA736U ~ 742U	f_T^*	$V_O = -10V, I_O = -5mA$	-	250	-	MHz
Input Current	KRA736U	I_I	$V_I = -5V$	-	-	-7.2	mA
	KRA737U			-	-	-3.8	
	KRA738U			-	-	-3.8	
	KRA739U			-	-	-1.8	
	KRA740U			-	-	-0.88	
	KRA741U			-	-	-0.16	
	KRA742U			-	-	-0.15	

Note : * Characteristic of Transistor Only.

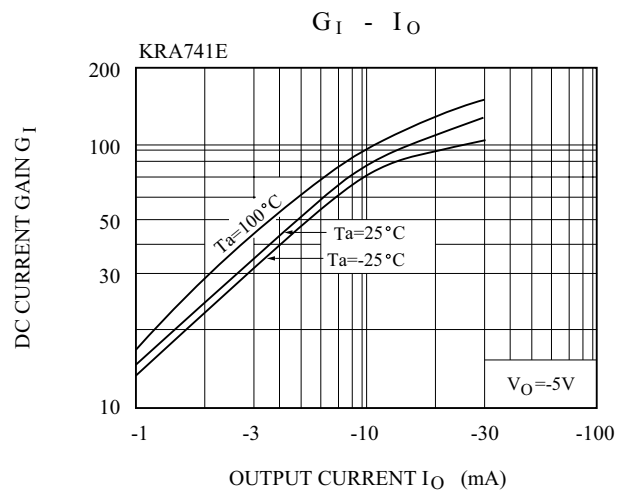
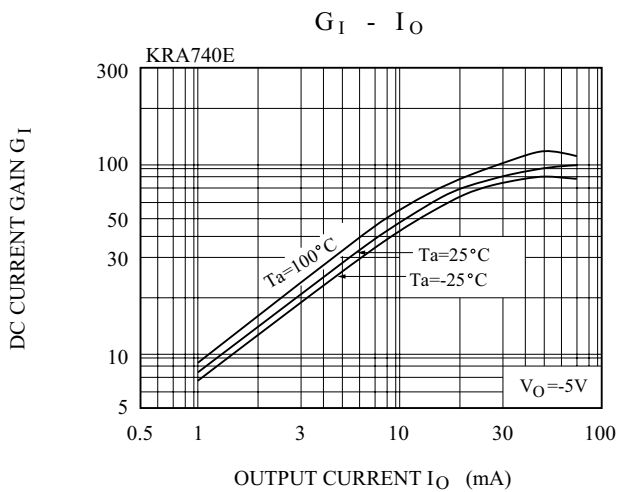
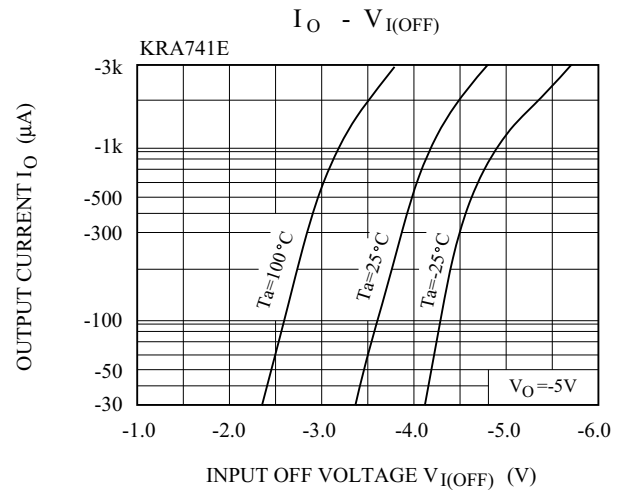
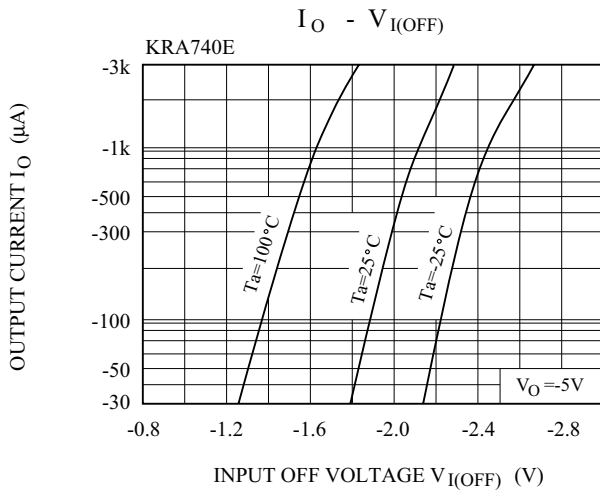
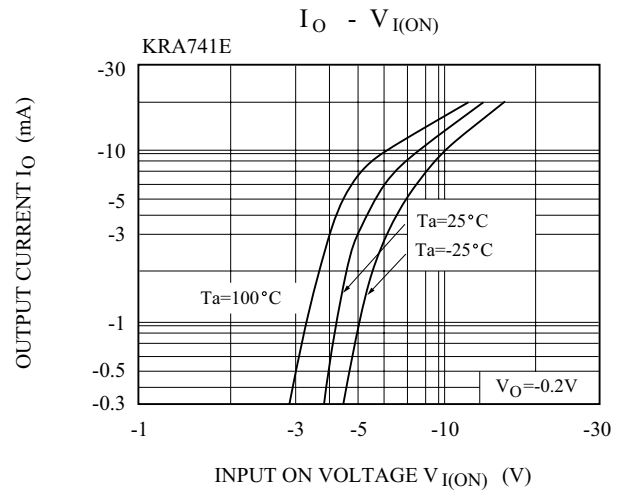
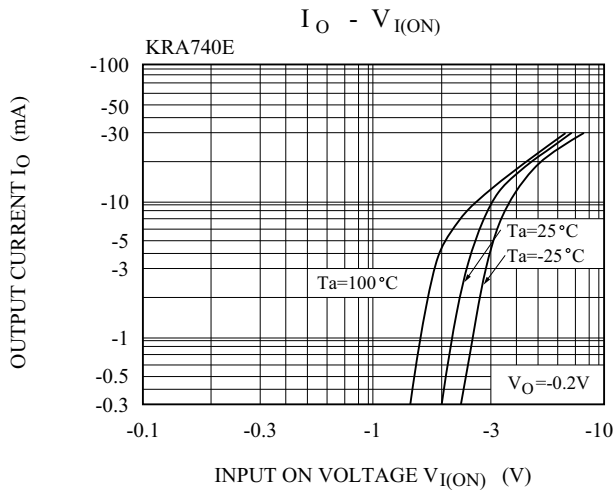
KRA736U~KRA742U



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