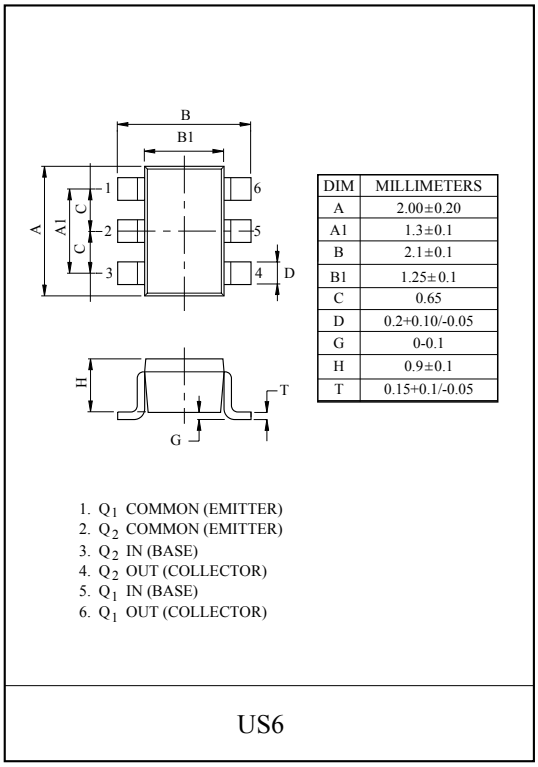
KRA721U~KRA726U

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.
- High Packing Density.

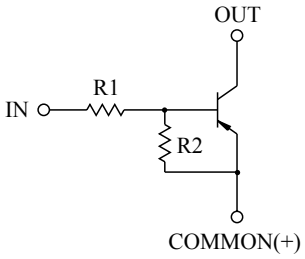


DIM	MILLIMETERS
A	2.00±0.20
A1	1.3±0.1
B	2.1±0.1
B1	1.25±0.1
C	0.65
D	0.2+0.10/-0.05
G	0-0.1
H	0.9±0.1
T	0.15+0.1/-0.05

1. Q_1 COMMON (EMITTER)
2. Q_2 COMMON (EMITTER)
3. Q_2 IN (BASE)
4. Q_2 OUT (COLLECTOR)
5. Q_1 IN (BASE)
6. Q_1 OUT (COLLECTOR)

US6

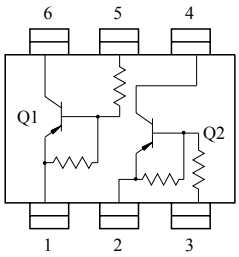
EQUIVALENT CIRCUIT



BIAS RESISTOR VALUES

TYPE NO.	R1(kΩ)	R2(kΩ)
KRA721U	4.7	4.7
KRA722U	10	10
KRA723U	22	22
KRA724U	47	47
KRA725U	2.2	47
KRA726U	4.7	47

EQUIVALENT CIRCUIT (TOP VIEW)

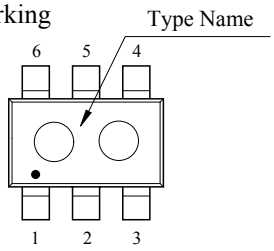


MAXIMUM RATING (Ta=25℃)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Output Voltage	KRA721U~726U	V_O	-50	V
Input Voltage	KRA721U	V_I	-20, 10	V
	KRA722U		-30, 10	
	KRA723U		-40, 10	
	KRA724U		-40, 10	
	KRA725U		-12, 5	
	KRA726U		-20, 5	
Output Current	KRA721U~726U	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



MARK SPEC

TYPE	KRA721U	KRA722U	KRA723U	KRA724U	KRA725U	KRA726U
MARK	JA	JB	JC	JD	JE	JF

ELECTRICAL CHARACTERISTICS (Ta=25℃)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Output Cut-off Current	KRA721U～726U	$I_{O(OFF)}$	V_O=-50V, V_I=0	-	-	-500	nA
DC Current Gain	KRA721U	G_I	V_O=-5V, I_O=-10mA	30	55	-	
	KRA722U			50	80	-	
	KRA723U			70	120	-	
	KRA724U			80	200	-	
	KRA725U			80	200	-	
	KRA726U			80	200	-	
Output Voltage	KRA721U～726U	$V_{O(ON)}$	I_O=-10mA, I_I=-0.5mA	-	-0.1	-0.3	V
Input Voltage (ON)	KRA721U	$V_{I(ON)}$	V_O=-0.2V, I_O=-5mA	-	-1.5	-2.0	V
	KRA722U			-	-1.8	-2.4	
	KRA723U			-	-2.1	-3.0	
	KRA724U			-	-2.8	-5.0	
	KRA725U			-	-0.8	-1.1	
	KRA726U			-	-0.9	-1.3	
Input Voltage (OFF)	KRA721U～724U	$V_{I(OFF)}$	V_O=-5V, I_O=-0.1mA	-1.0	-1.2	-	V
	KRA725U～726U			-0.5	-0.65	-	
Transition Frequency	KRA721U～726U	f_T *	V_O=-10V, I_O=-5mA	-	200	-	MHz
Input Current	KRA721U	I_I	V_I=-5V	-	-	-1.8	mA
	KRA722U			-	-	-0.88	
	KRA723U			-	-	-0.36	
	KRA724U			-	-	-0.18	
	KRA725U			-	-	-3.6	
	KRA726U			-	-	-1.8	

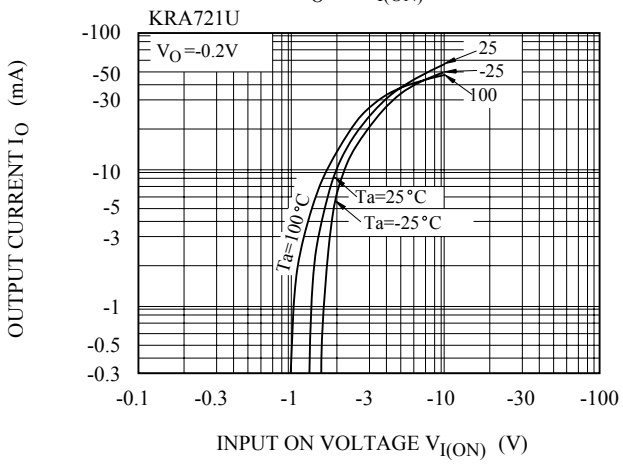
Note : * Characteristic of Transistor Only.

ELECTRICAL CHARACTERISTICS (Ta=25℃)

CHARACTERISTIC			SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Switching Time	Rise Time	KRA721U	t_r	V_O=-5V V_{IN}=-5V R_L=1kΩ	-	0.07	-	μS
		KRA722U			-	0.06	-	
		KRA723U			-	0.2	-	
		KRA724U			-	0.24	-	
		KRA725U			-	0.02	-	
		KRA726U			-	0.07	-	
	Storage Time	KRA721U	t_{stg}		-	1.1	-	
		KRA722U			-	1.1	-	
		KRA723U			-	1.1	-	
		KRA724U			-	1.1	-	
		KRA725U			-	1.1	-	
		KRA726U			-	1.1	-	
	Fall Time	KRA721U	t_f		-	0.15	-	
		KRA722U			-	0.24	-	
		KRA723U			-	0.38	-	
		KRA724U			-	0.63	-	
		KRA725U			-	0.1	-	
		KRA726U			-	0.2	-	

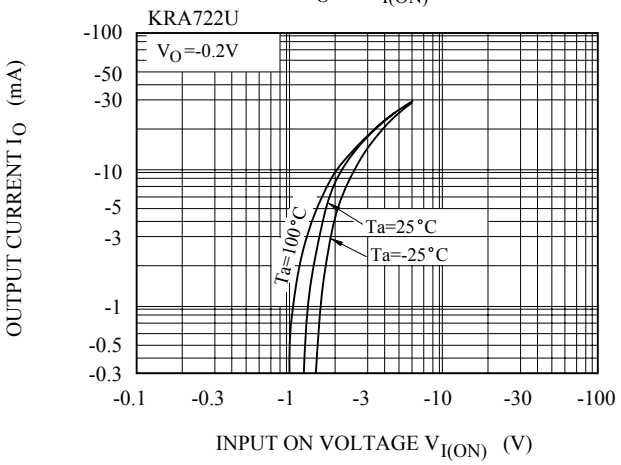
I_O - $V_{I(ON)}$

KRA721U



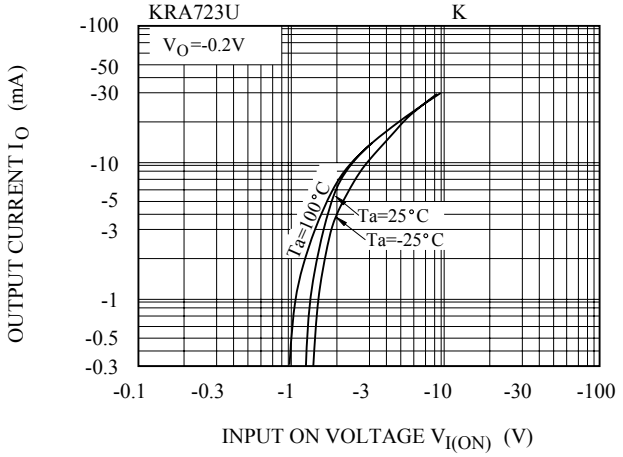
I_O - $V_{I(ON)}$

KRA722U



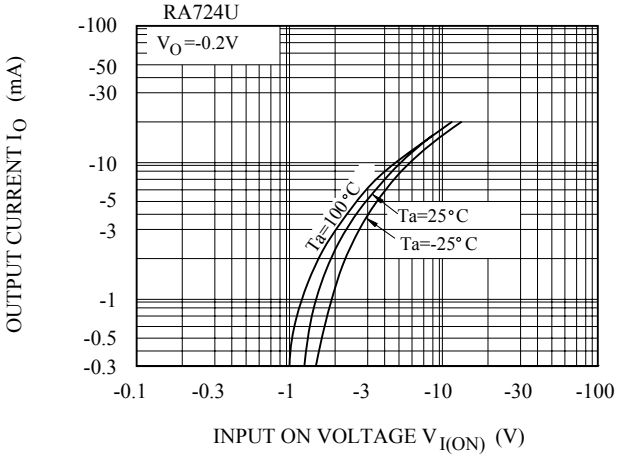
I_O - $V_{I(ON)}$

KRA723U K



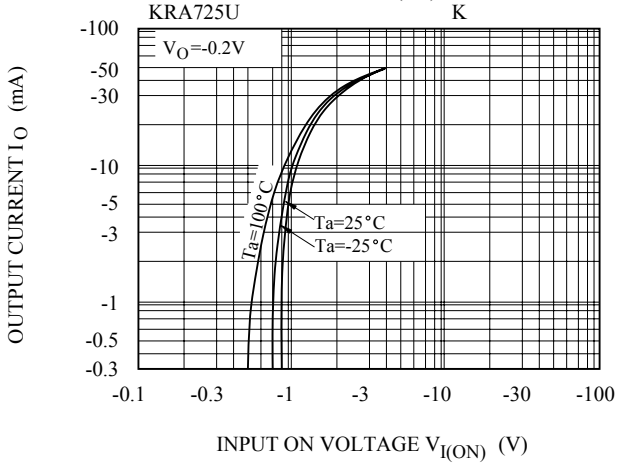
I_O - $V_{I(ON)}$

RA724U



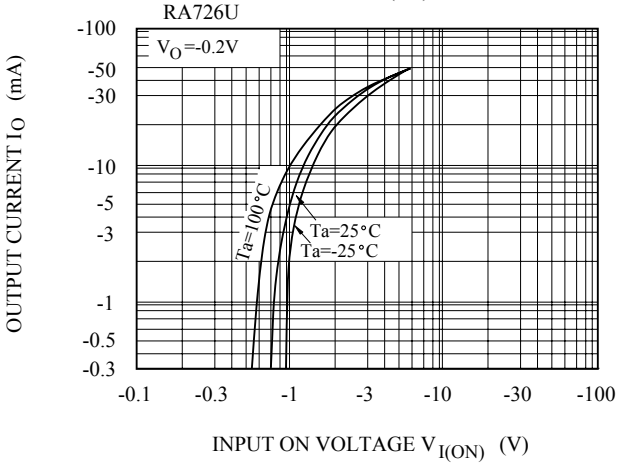
I_O - $V_{I(ON)}$

KRA725U K



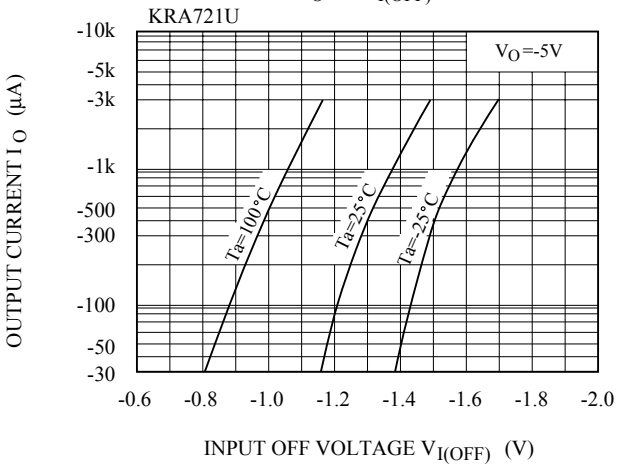
I_O - $V_{I(ON)}$

RA726U



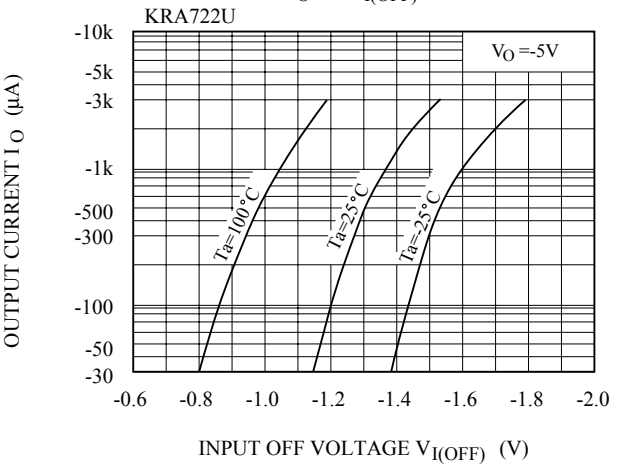
I_O - $V_{I(OFF)}$

KRA721U



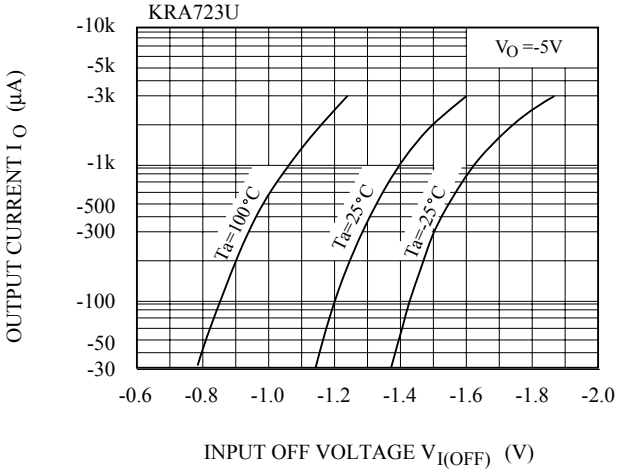
I_O - $V_{I(OFF)}$

KRA722U



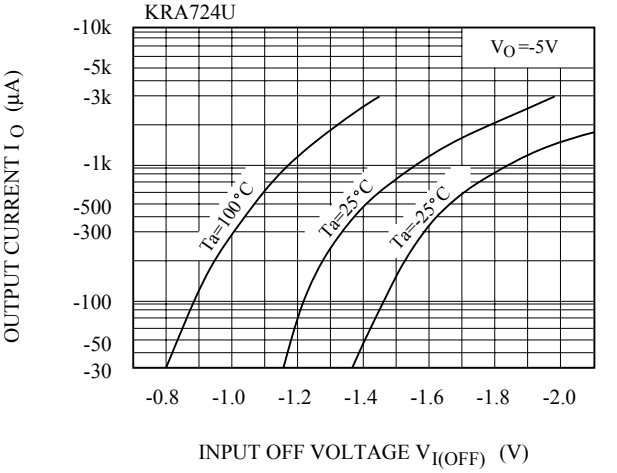
I_O - $V_{I(OFF)}$

KRA723U



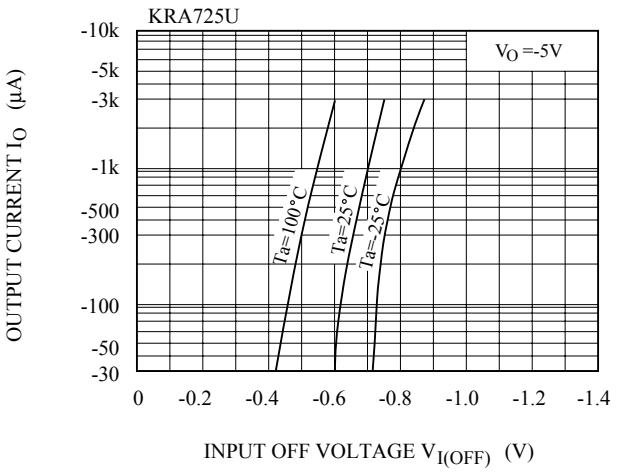
I_O - $V_{I(OFF)}$

KRA724U



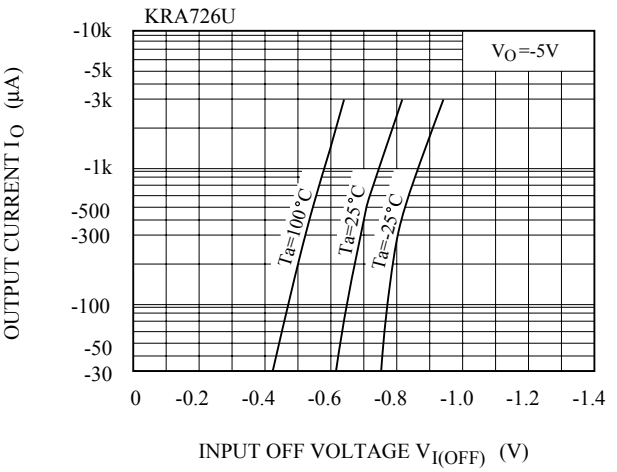
I_O - $V_{I(OFF)}$

KRA725U



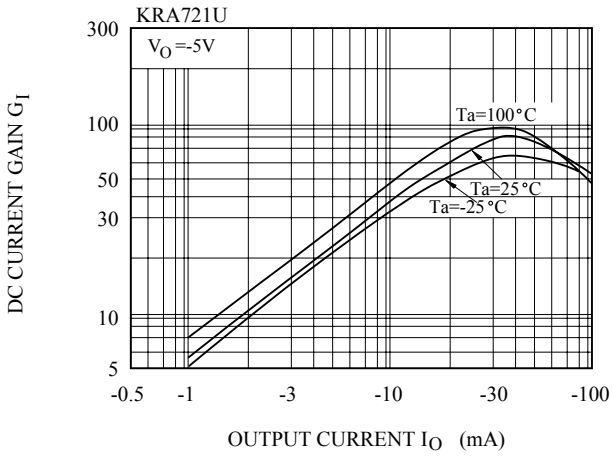
I_O - $V_{I(OFF)}$

KRA726U



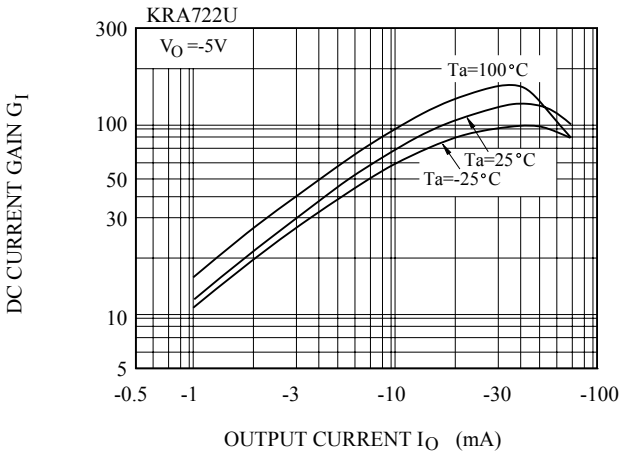
G_I - I_O

KRA721U



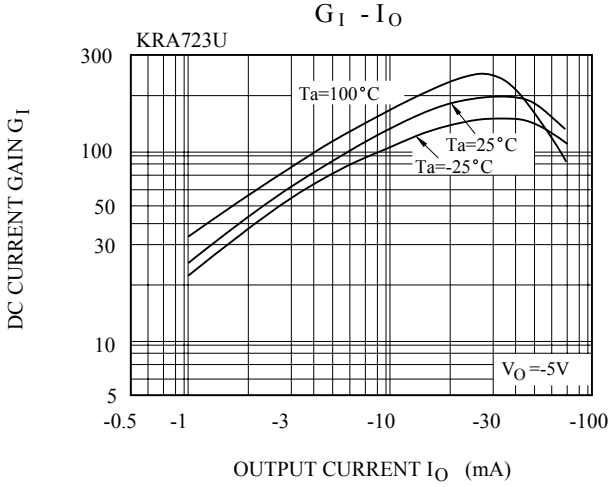
G_I - I_O

KRA722U



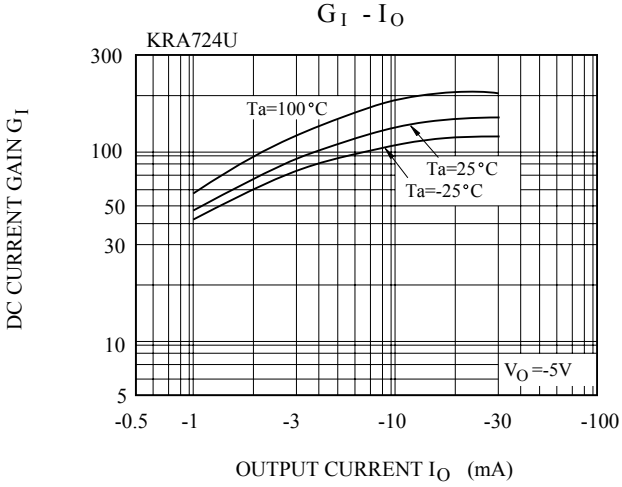
G_I - I_O

KRA723U



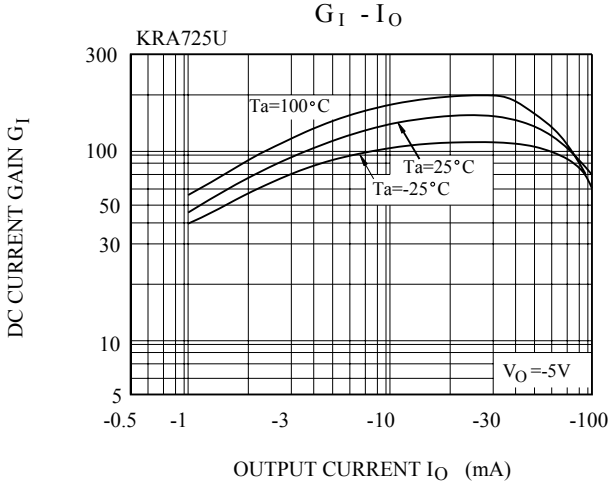
G_I - I_O

KRA724U



G_I - I_O

KRA725U



G_I - I_O

KRA726U