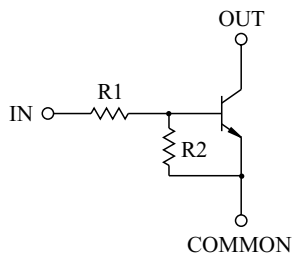


SWITCHING APPLICATION.
INTERFACE CIRCUIT AND DRIVER CIRCUIT APPLICATION

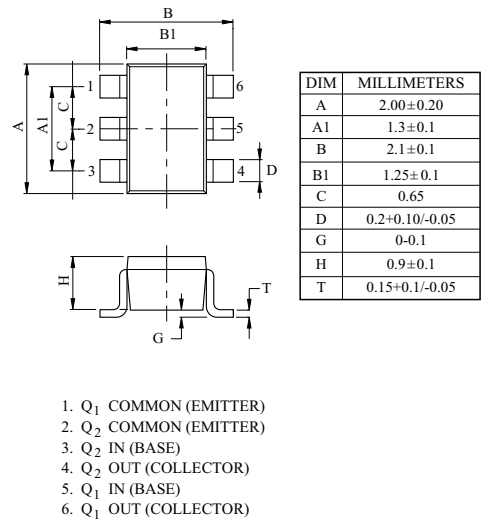
FEATURES

- With Built-in Bias Resistors.
- Simplify Circuit Design.
- Reduce a Quantity of Parts and Manufacturing Process.
- Suffix U : Qualified to AEC-Q101.
ex) KRC836U-RTK/HU

EQUIVALENT CIRCUIT

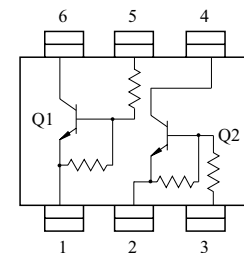


TYPE NO.	R1(k Ω)	R2(k Ω)
KRC836U	1	10
KRC837U	2.2	2.2
KRC838U	2.2	10
KRC839U	4.7	10
KRC840U	10	4.7
KRC841U	47	10
KRC842U	100	100



US6

EQUIVALENT CIRCUIT (TOP VIEW)



MAXIMUM RATING (Ta=25 °C)

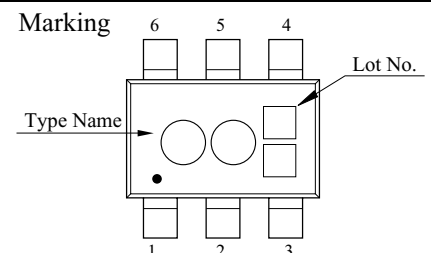
CHARACTERISTIC		SYMBOL	RATING	UNIT
Output Voltage	KRC836U~842U	V_O	50	V
Input Voltage	KRC836U	V_I	10, -5	V
	KRC837U		12, -10	
	KRC838U		12, -5	
	KRC839U		20, -7	
	KRC840U		30, -10	
	KRC841U		40, -15	
	KRC842U		40, -10	
Output Current	KRC836U~842U	I_O	100	mA
Power Dissipation		P_D *	200	mW
Junction Temperature		T_j	-55~150	
Storage Temperature Range		T_{stg}	-55~150	

* Total Rating.

MARK SPEC

TYPE	KRC836U	KRC837U	KRC838U	KRC839U	KRC840U	KRC841U	KRC842U
MARK	Y2	Y4	Y5	Y6	Y7	Y8	Y9

Marking



KRC836U~KRC842U

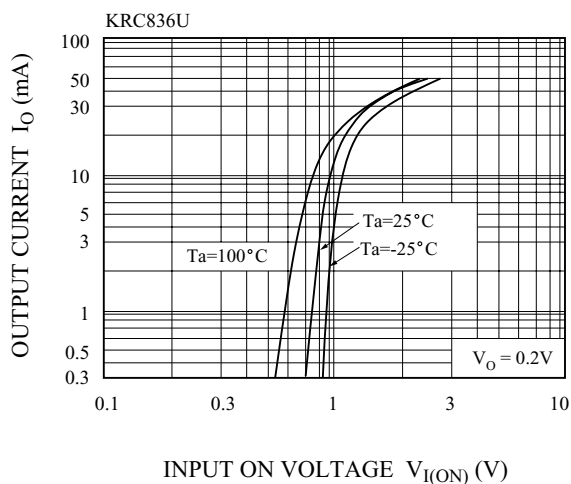
ELECTRICAL CHARACTERISTICS (Ta=25 °C)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Output Cut-off Current	KRC836U~842U	$I_{O(OFF)}$	$V_O=50V, V_I=0$	-	-	500	nA
DC Current Gain	KRC836U	G_I	$V_O=5V, I_O=5mA$	33	-	-	
	KRC837U		$V_O=5V, I_O=20mA$	20	-	-	
	KRC838U		$V_O=5V, I_O=10mA$	33	-	-	
	KRC839U		$V_O=5V, I_O=10mA$	30	-	-	
	KRC840U		$V_O=5V, I_O=10mA$	24	-	-	
	KRC841U		$V_O=5V, I_O=5mA$	33	-	-	
	KRC842U		$V_O=5V, I_O=5mA$	62	-	-	
Output Voltage	KRC836U	$V_{O(ON)}$	$I_O=10mA, I_I=0.5mA$	-	-	0.3	V
	KRC837U		$I_O=10mA, I_I=0.5mA$	-	0.1	0.3	
	KRC838U		$I_O=10mA, I_I=0.5mA$	-	-	0.3	
	KRC839U		$I_O=10mA, I_I=0.5mA$	-	0.1	0.3	
	KRC840U		$I_O=10mA, I_I=0.5mA$	-	0.1	0.3	
	KRC841U		$I_O=10mA, I_I=0.5mA$	-	0.1	0.3	
	KRC842U		$I_O=5mA, I_I=0.25mA$	-	0.1	0.3	
Input Voltage (ON)	KRC836U	$V_{I(ON)}$	$V_O=0.3V, I_O=20mA$	-	0.98	3	V
	KRC837U		$V_O=0.3V, I_O=20mA$	-	1.83	3	
	KRC838U		$V_O=0.3V, I_O=20mA$	-	1.22	3	
	KRC839U		$V_O=0.3V, I_O=20mA$	-	1.76	2.5	
	KRC840U		$V_O=0.3V, I_O=2mA$	-	2	3	
	KRC841U		$V_O=0.3V, I_O=2mA$	-	3.9	5	
	KRC842U		$V_O=0.3V, I_O=1mA$	-	1.64	3	
Input Voltage (OFF)	KRC836U	$V_{I(OFF)}$	$V_{CC}=5V, I_O=100\mu A$	0.3	0.63	-	V
	KRC837U			0.5	1.15	-	
	KRC838U			0.3	0.67	-	
	KRC839U			0.3	0.82	-	
	KRC840U			0.8	1.68	-	
	KRC841U			1	3.09	-	
	KRC842U			0.5	1.17	-	
Transition Frequency	KRC836U~842U	f_T^*	$V_O=10V, I_O=5mA$	-	250	-	MHz
Input Current	KRC836U	I_I	$V_I=5V$	-	-	7.2	mA
	KRC837U			-	-	3.8	
	KRC838U			-	-	3.8	
	KRC839U			-	-	1.8	
	KRC840U			-	-	0.88	
	KRC841U			-	-	0.16	
	KRC842U			-	-	0.15	
Input Resistor	KRC836U	R1	-	0.7	1	1.3	k Ω
	KRC837U			1.54	2.2	2.86	
	KRC838U			1.54	2.2	2.86	
	KRC839U			3.29	4.7	6.11	
	KRC840U			7	10	13	
	KRC841U			32.9	47	61.1	
	KRC842U			70	100	130	
Resistor Ratio	KRC836U	R2/R1	-	8	10	12	
	KRC837U			0.8	1.0	1.2	
	KRC838U			3.6	4.5	5.5	
	KRC839U			1.7	2.1	2.6	
	KRC840U			0.37	0.47	0.57	
	KRC841U			0.17	0.21	0.26	
	KRC842U			0.8	1.0	1.2	

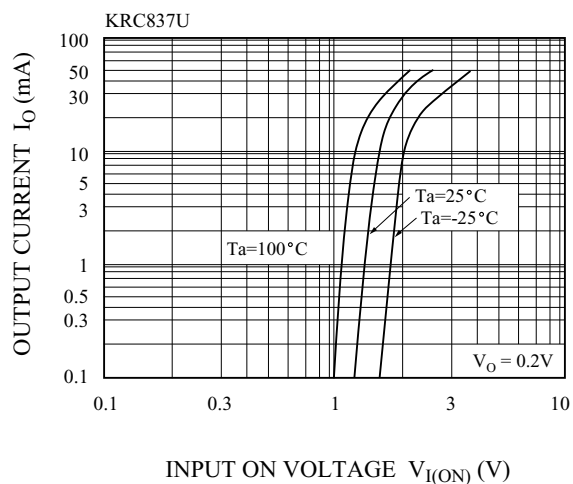
Note : * Characteristic of Transistor Only.

KRC836U~KRC842U

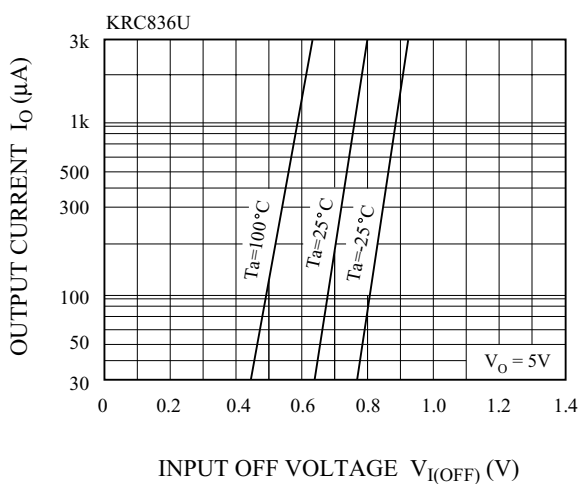
$I_O - V_{I(ON)}$



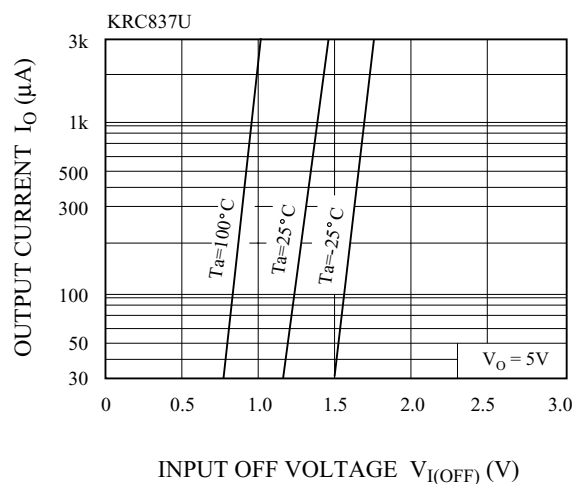
$I_O - V_{I(ON)}$



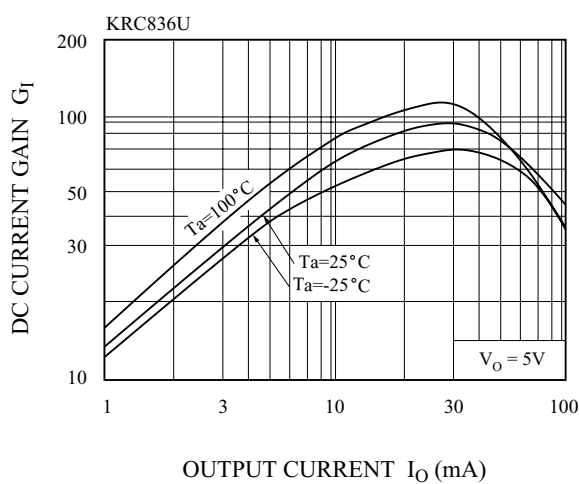
$I_O - V_{I(OFF)}$



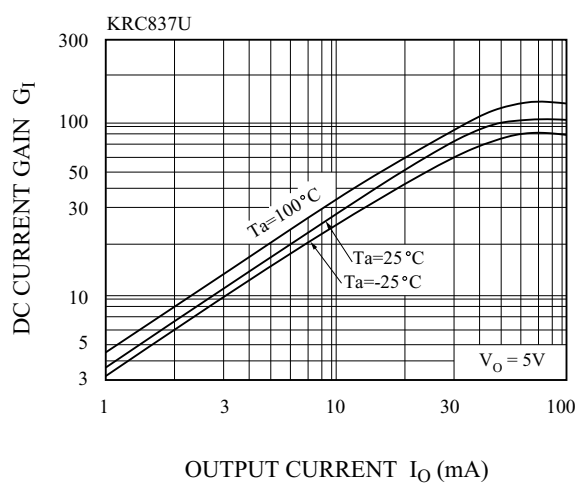
$I_O - V_{I(OFF)}$



$G_I - I_O$

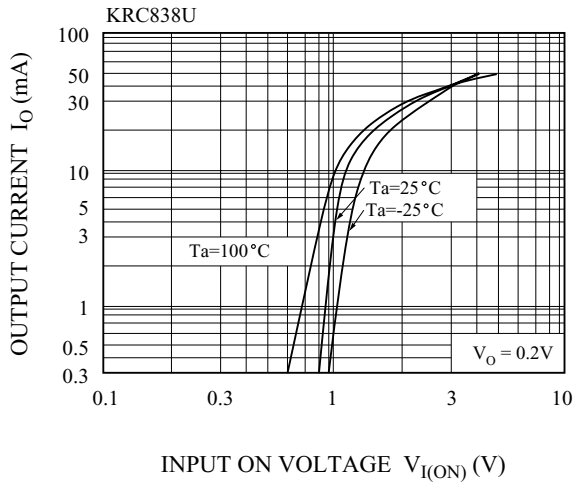


$G_I - I_O$

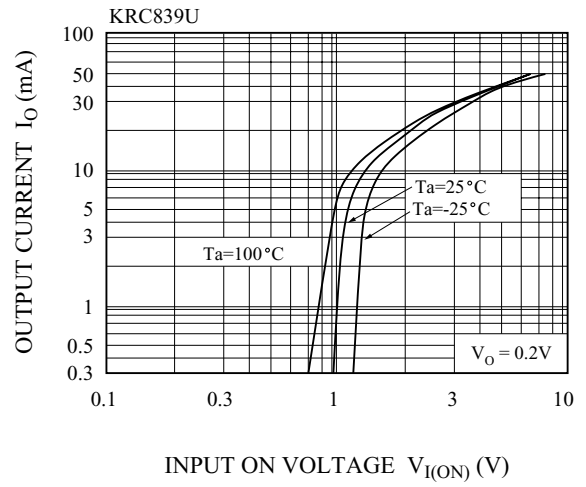


KRC836U~KRC842U

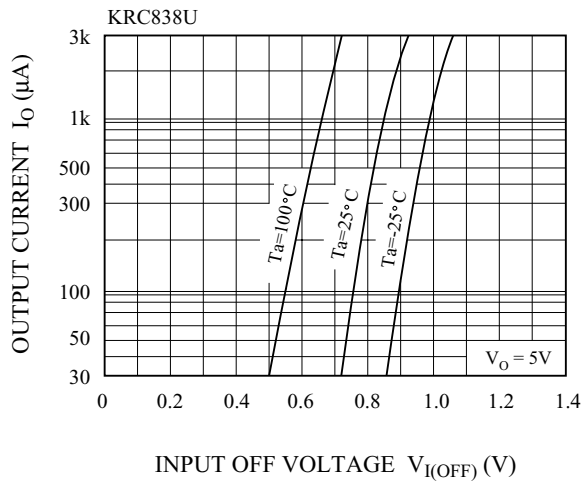
$I_O - V_{I(ON)}$



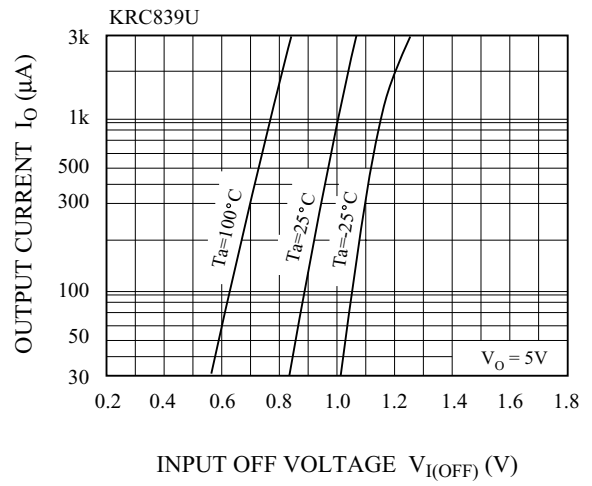
$I_O - V_{I(ON)}$



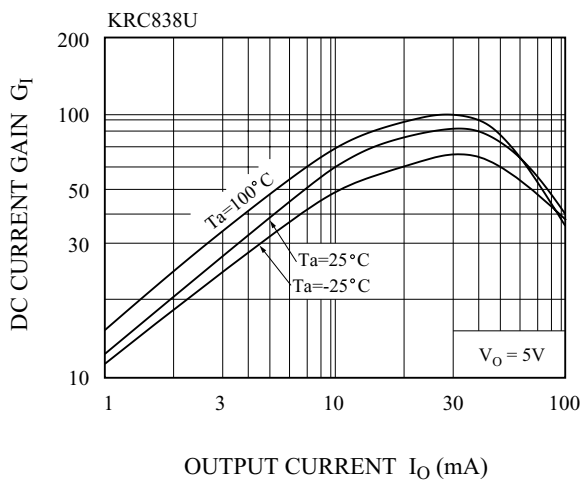
$I_O - V_{I(OFF)}$



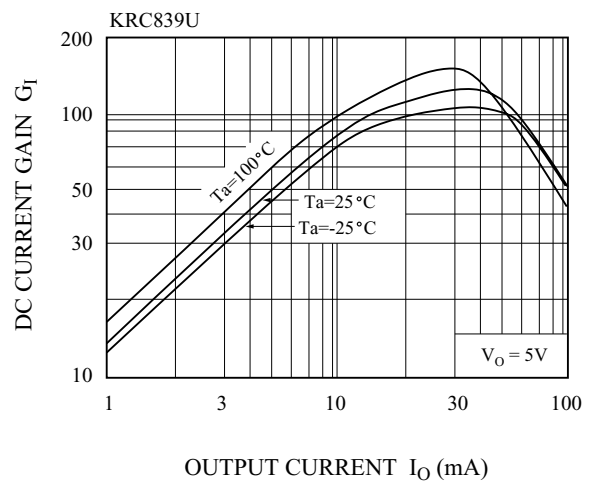
$I_O - V_{I(OFF)}$



$G_I - I_O$

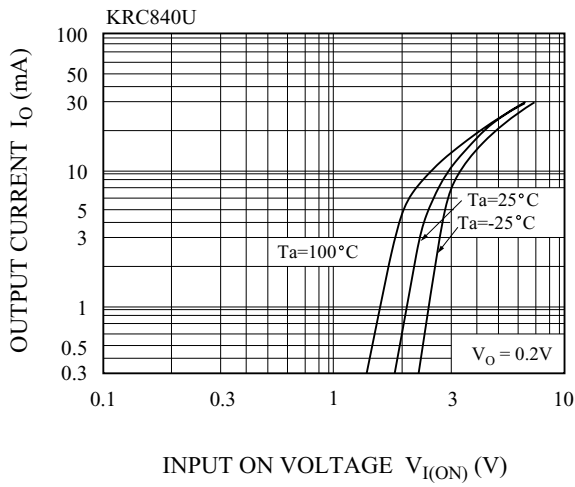


$G_I - I_O$

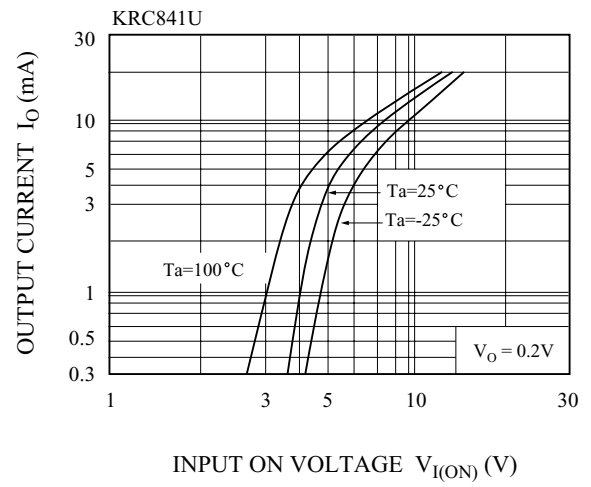


KRC836U~KRC842U

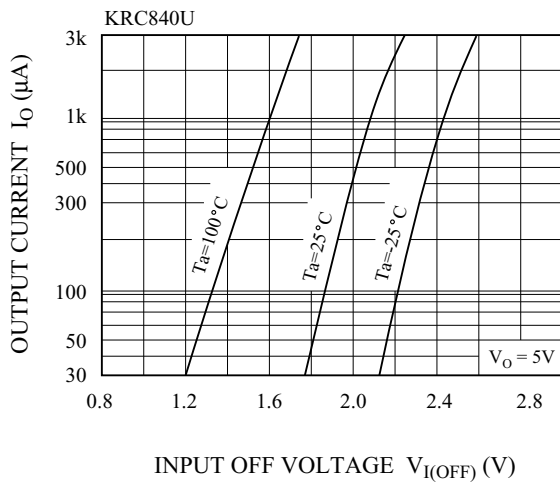
$I_O - V_{I(ON)}$



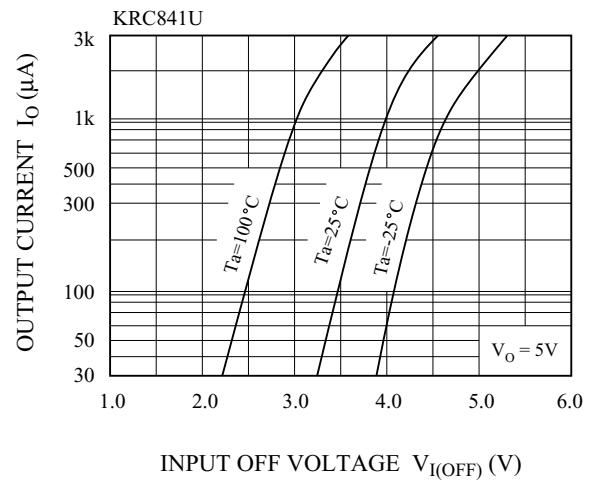
$I_O - V_{I(ON)}$



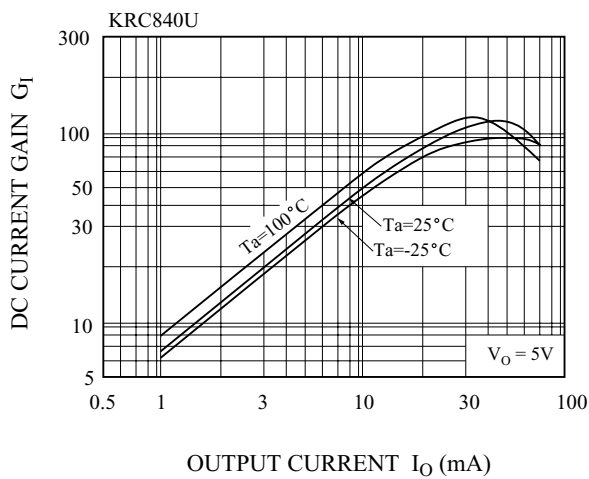
$I_O - V_{I(OFF)}$



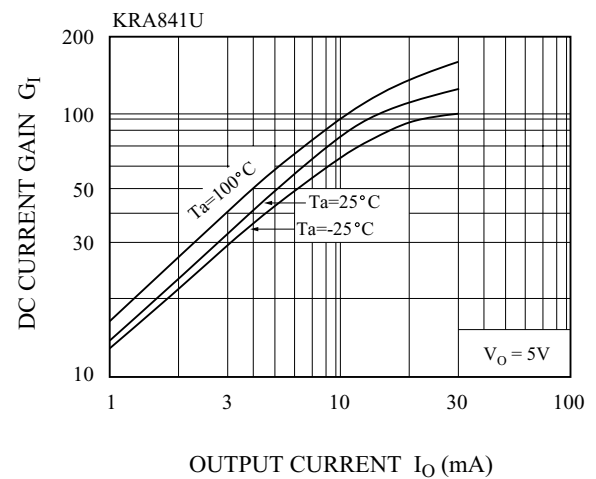
$I_O - V_{I(OFF)}$



$G_I - I_O$

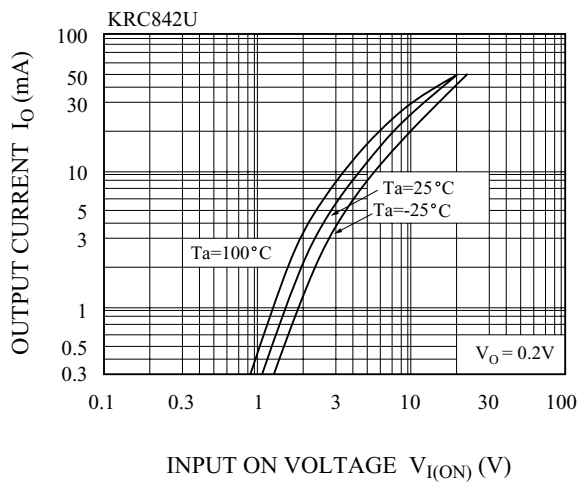


$G_I - I_O$

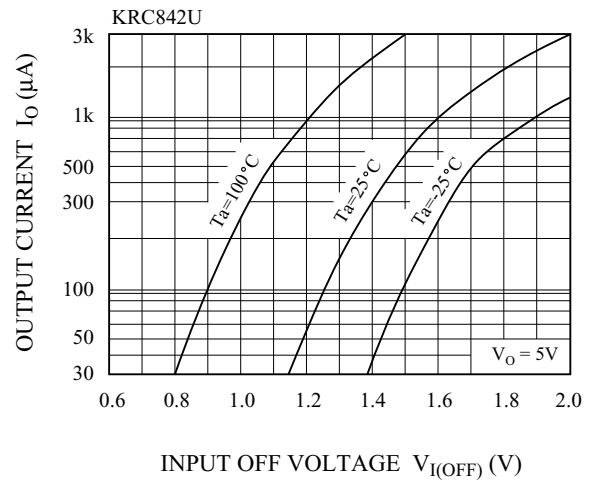


KRC836U~KRC842U

$I_O - V_{I(ON)}$



$I_O - V_{I(OFF)}$



$G_I - I_O$

