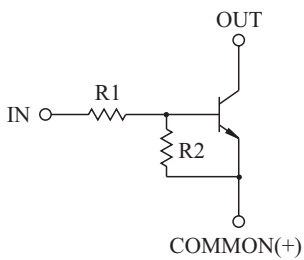


SWITCHING APPLICATION.
INTERFACE CIRCUIT AND DRIVER CIRCUIT APPLICATION.

FEATURES

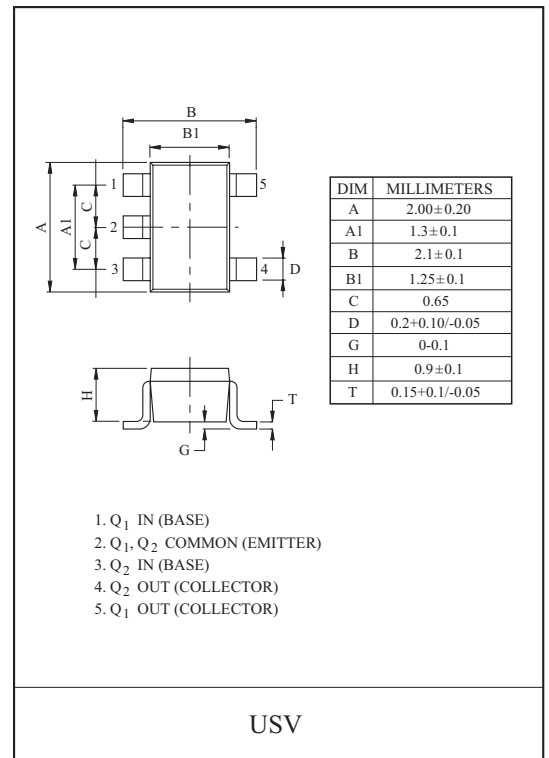
- With Built-in Bias Resistors.
- Simplify Circuit Design.
- Reduce a Quantity of Parts and Manufacturing Process.

EQUIVALENT CIRCUIT

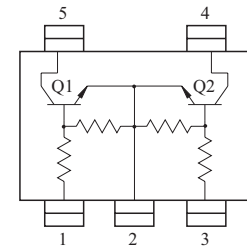


BIAS RESISTOR VALUES

TYPE NO.	R1(k Ω)	R2(k Ω)
KRC657U	10	47
KRC658U	22	47
KRC659U	47	22



EQUIVALENT CIRCUIT (TOP VIEW)



MAXIMUM RATING (Ta=25 °C)

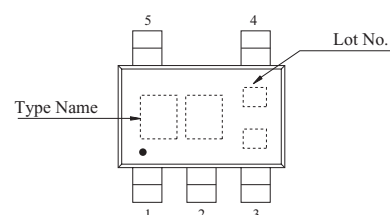
CHARACTERISTIC		SYMBOL	RATING	UNIT
Output Voltage	KRC657U ~659U	V _O	50	V
Input Voltage	KRC657U	V _I	30, -6	V
	KRC658U		40, -7	
	KRC659U		40, -15	
Output Current	KRC657U ~659U	I _O	100	mA
Power Dissipation		P _D *	200	mW
Junction Temperature		T _j	150	°C
Storage Temperature Range		T _{stg}	-55 ~150	°C

* Total Rating.

MARK SPEC

TYPE	KRC657U	KRC658U	KRC659U
MARK	NH	NI	NJ

Marking



KRC657U~KRC659U

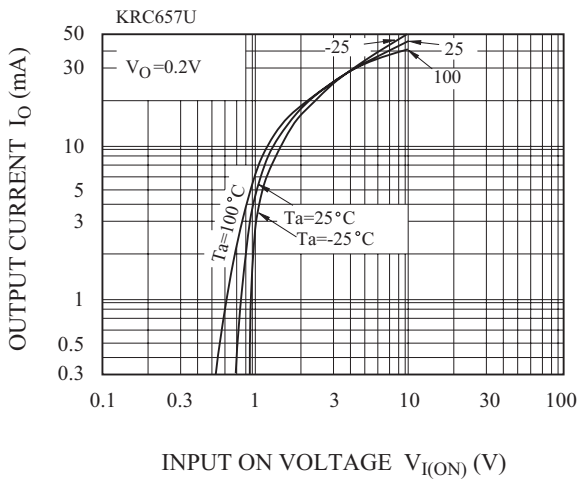
ELECTRICAL CHARACTERISTICS (Ta=25 °C)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT	
Output Cut-off Current	KRC657U ~659U	$I_{O(OFF)}$	$V_O=50V, V_I=0$	-	-	500	nA	
DC Current Gain	KRC657U	G_I	$V_O=5V, I_O=10mA$	80	150	-		
	KRC658U			80	150	-		
	KRC659U			70	140	-		
Output Voltage	KRC657U ~659U	$V_{O(ON)}$	$I_O=10mA, I_I=0.5mA$	-	0.1	0.3	V	
Input Voltage (ON)	KRC657U	$V_{I(ON)}$	$V_O=0.2V, I_O=5mA$	-	1.2	1.8	V	
	KRC658U			-	1.8	2.6		
	KRC659U			-	3.0	5.8		
Input Voltage (OFF)	KRC657U	$V_{I(OFF)}$	$V_O=5V, I_O=0.1mA$	0.5	0.75	-	V	
	KRC658U			0.6	0.88	-		
	KRC659U			1.5	1.82	-		
Transition Frequency	KRC657U ~659U	f_T^*	$V_O=10V, I_O=5mA$	-	200	-	MHz	
Input Current	KRC657U	I_I	$V_I=5V$	-	-	0.88	mA	
	KRC658U			-	-	0.36		
	KRC659U			-	-	0.16		
Switching Time	Rise Time	t_r	$V_O=5V, V_{IN}=5V$ $R_L=1k \Omega$	-	0.05	-	μS	
				KRC658U	-	0.12		-
				KRC659U	-	0.26		-
	Storage Time	t_{stg}		KRC657U	-	2.0		-
				KRC658U	-	2.4		-
				KRC659U	-	1.5		-
	Fall Time	t_f		KRC657U	-	0.36		-
				KRC658U	-	0.4		-
				KRC659U	-	0.41		-

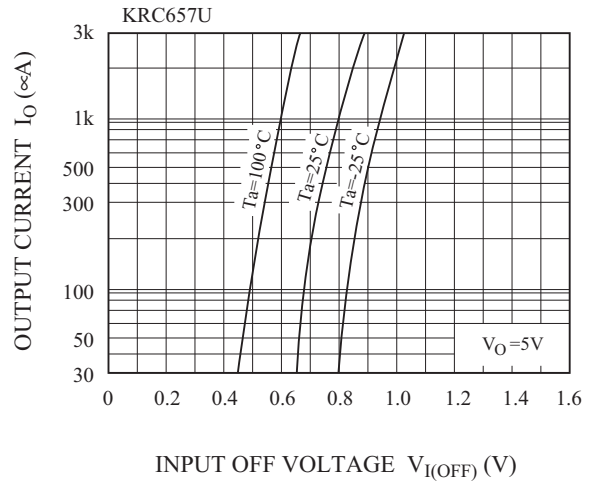
Note : * Characteristic of Transistor Only.

KRC657U~KRC659U

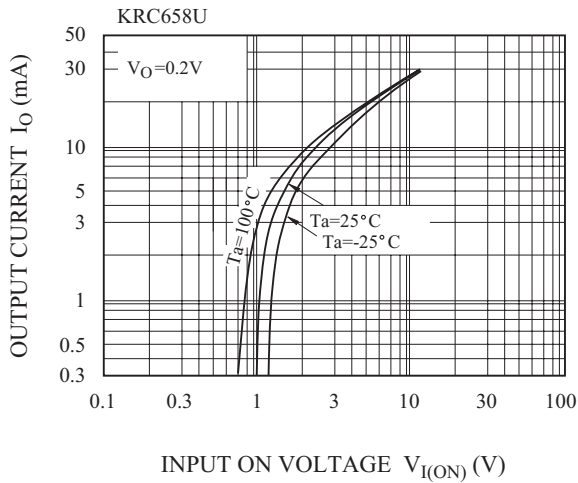
$I_O - V_{I(ON)}$



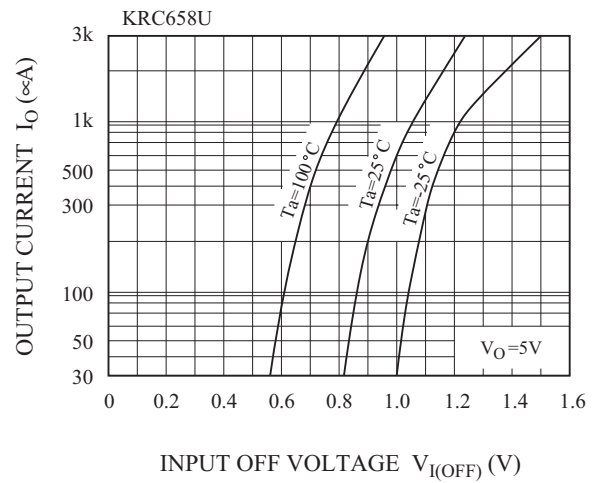
$I_O - V_{I(OFF)}$



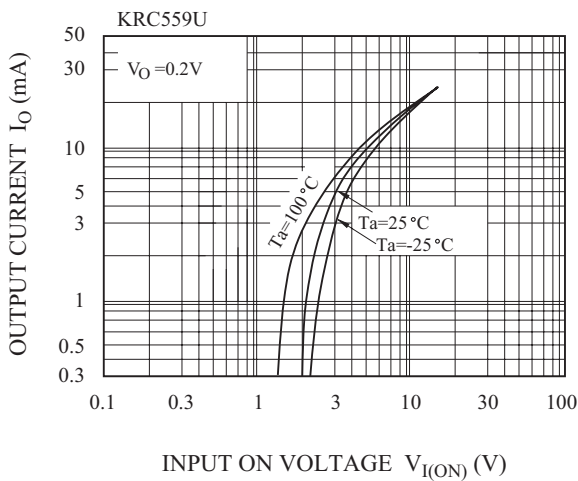
$I_O - V_{I(ON)}$



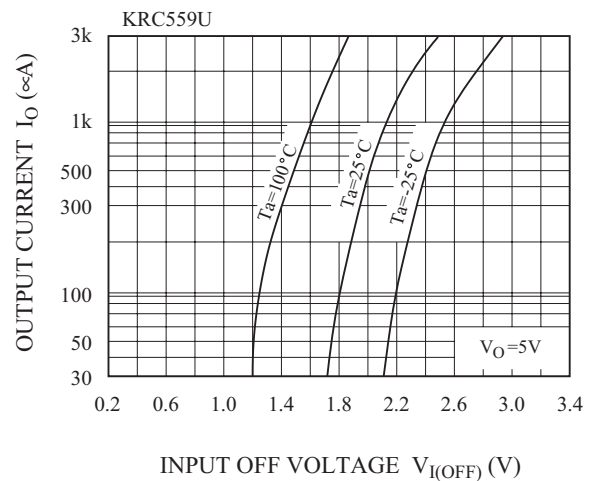
$I_O - V_{I(OFF)}$



$I_O - V_{I(ON)}$

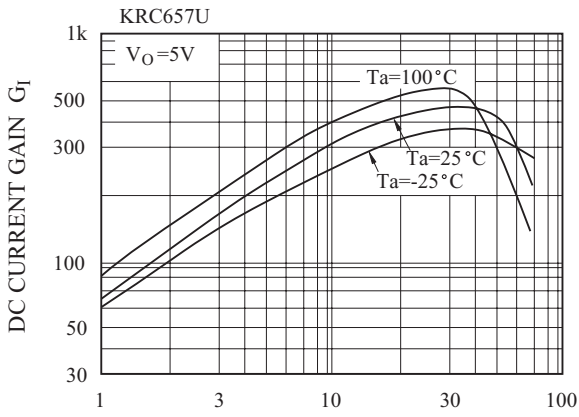


$I_O - V_{I(OFF)}$



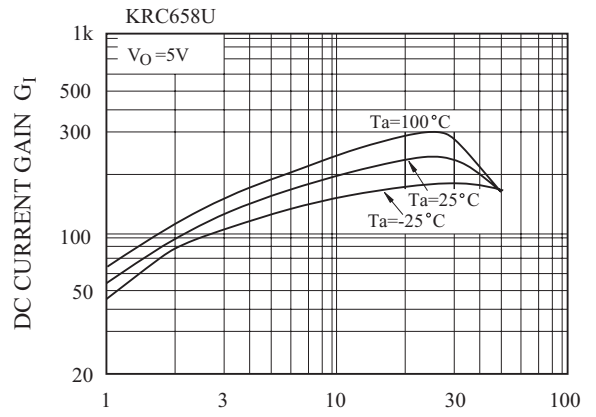
KRC657U~KRC659U

$G_I - I_O$



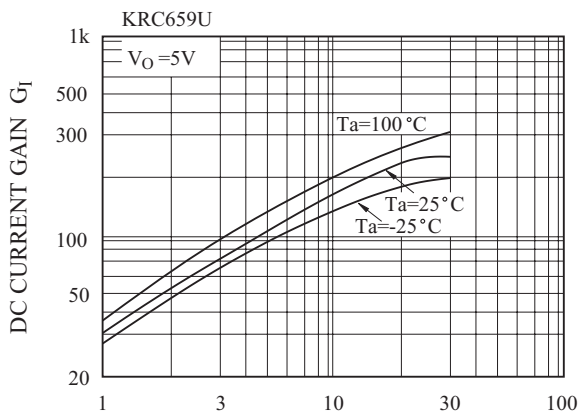
OUTPUT CURRENT I_O (mA)

$G_I - I_O$



OUTPUT CURRENT I_O (mA)

$G_I - I_O$



OUTPUT CURRENT I_O (mA)