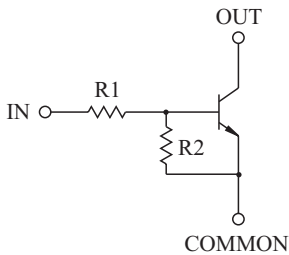


SWITCHING APPLICATION.  
INTERFACE CIRCUIT AND DRIVER CIRCUIT APPLICATION.

### FEATURES

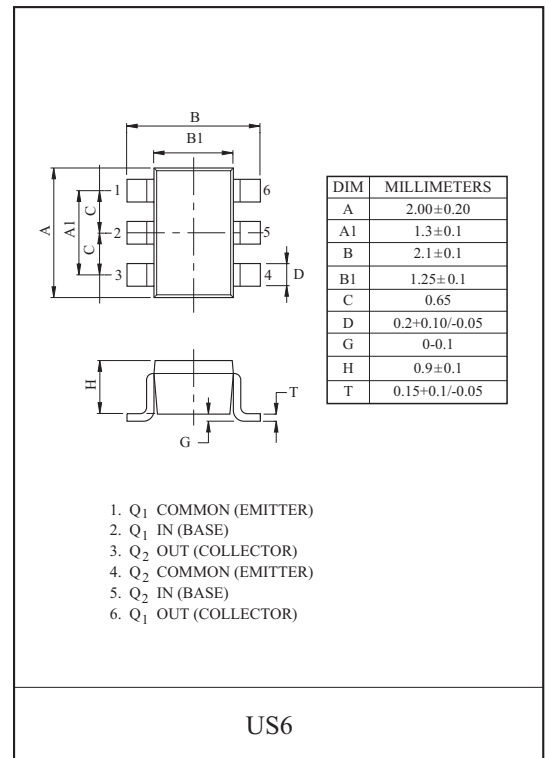
- With Built-in Bias Resistors.
- Simplify Circuit Design.
- Reduce a Quantity of Parts and Manufacturing Process.
- High Packing Density.

### EQUIVALENT CIRCUIT

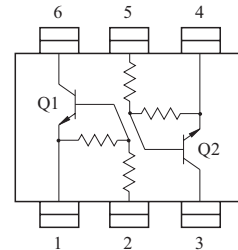


### BIAS RESISTOR VALUES

TYPE NO.	R1(k )	R2(k )
KRC857U	10	47
KRC858U	22	47
KRC859U	47	22



### EQUIVALENT CIRCUIT (TOP VIEW)



### MAXIMUM RATING (Ta=25 )

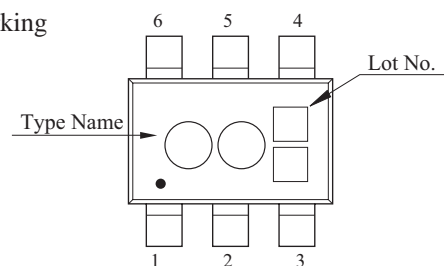
CHARACTERISTIC		SYMBOL	RATING	UNIT
Output Voltage	KRC857U 859U	V <sub>O</sub>	50	V
Input Voltage	KRC857U	V <sub>I</sub>	30, -6	V
	KRC858U		40, -7	
	KRC859U		40, -15	
Output Current	KRC857U 859U	I <sub>O</sub>	100	mA
Power Dissipation		P <sub>D</sub> *	200	mW
Operating and Storage Junction Temperature Range		T <sub>j</sub> , T <sub>stg</sub>	-55 150	

\* Total Rating.

### MARK SPEC

TYPE	KRC857U	KRC858U	KRC859U
MARK	NH	NI	NJ

### Marking



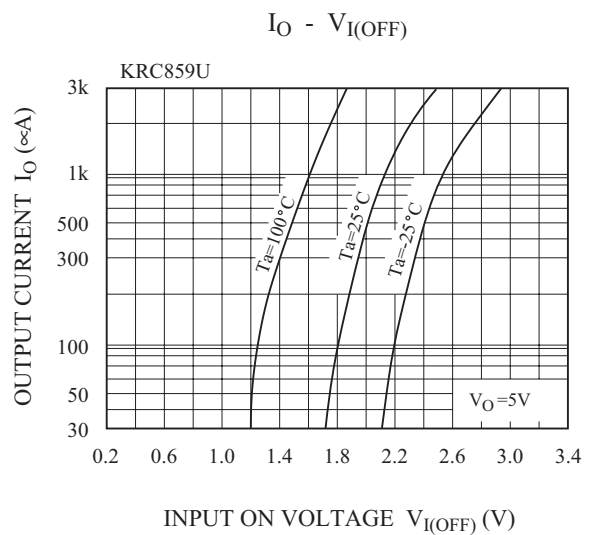
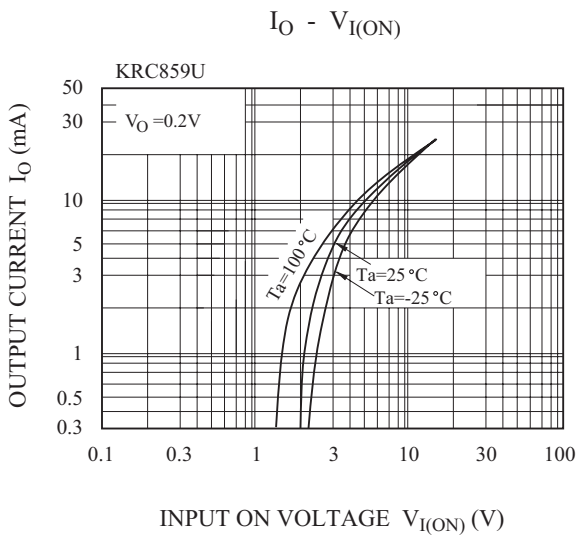
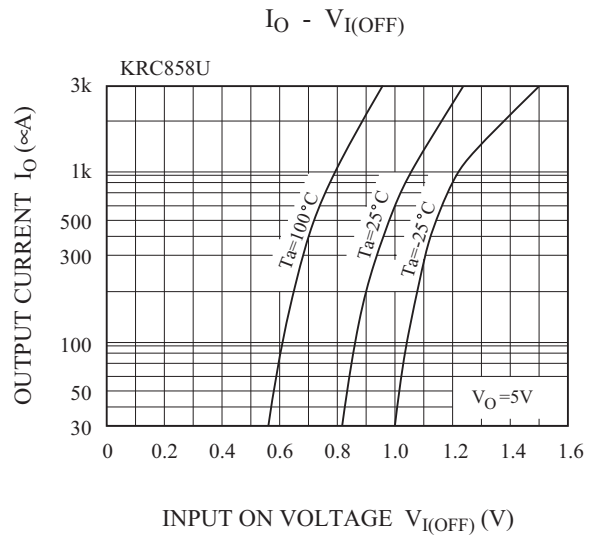
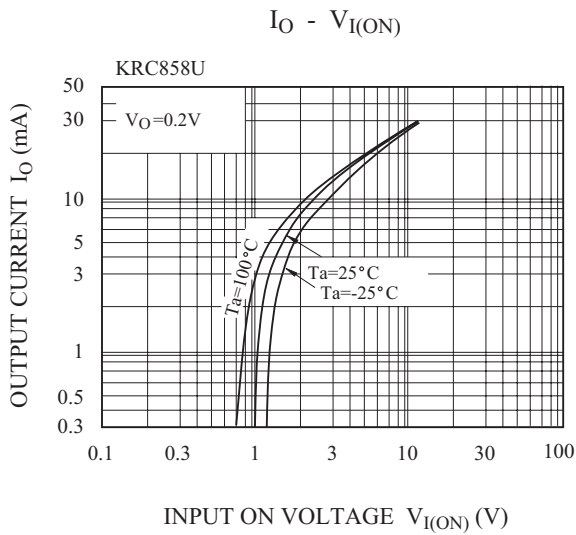
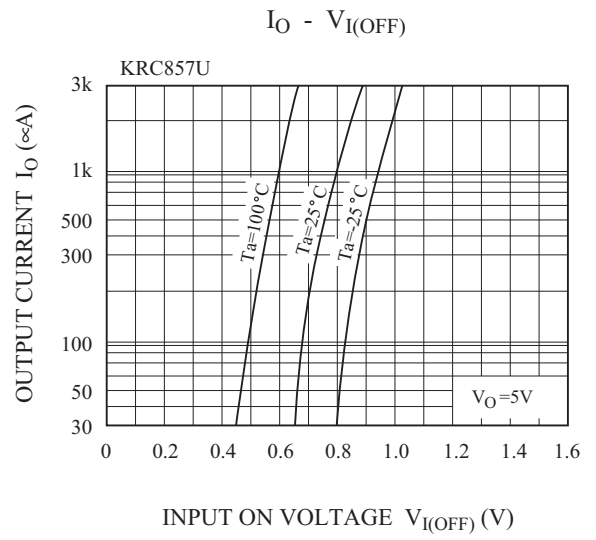
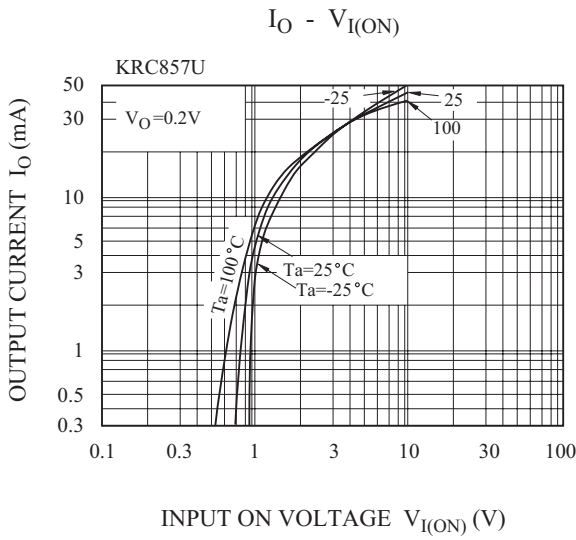
# KRC857U~KRC859U

## ELECTRICAL CHARACTERISTICS (Ta=25 )

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT	
Output Cut-off Current		KRC857U 859U	$I_{O(OFF)}$	$V_O=50V, V_I=0$	-	-	500	nA
DC Current Gain	KRC857U		$G_I$	$V_O=5V, I_O=10mA$	80	150	-	
	KRC858U				80	150	-	
	KRC859U				70	140	-	
Output Voltage		KRC857U 859U	$V_{O(ON)}$	$I_O=10mA, I_I=0.5mA$	-	0.1	0.3	V
Input Voltage (ON)	KRC857U		$V_{I(ON)}$	$V_O=0.2V, I_O=5mA$	-	1.2	1.8	V
	KRC858U				-	1.8	2.6	
	KRC859U				-	3.0	5.8	
Input Voltage (OFF)	KRC857U		$V_{I(OFF)}$	$V_O=5V, I_O=0.1mA$	0.5	0.75	-	V
	KRC858U				0.6	0.88	-	
	KRC859U				1.5	1.82	-	
Transition Frequency		KRC857U 859U	$f_T^*$	$V_O=10V, I_O=5mA$	-	200	-	MHz
Input Current	KRC857U		$I_I$	$V_I=5V$	-	-	0.88	mA
	KRC858U				-	-	0.36	
	KRC859U				-	-	0.16	
Switching Time	Rise Time	KRC857U	$t_r$	$V_O=5V, V_{IN}=5V$ $R_L=1k$	-	0.05	-	$\mu s$
		KRC858U			-	0.12	-	
		KRC859U			-	0.26	-	
	Storage Time	KRC857U	$t_{stg}$		-	2.0	-	
		KRC858U			-	2.4	-	
		KRC859U			-	1.5	-	
	Fall Time	KRC857U	$t_f$		-	0.36	-	
		KRC858U			-	0.4	-	
		KRC859U			-	0.41	-	
Input Resistor	KRC857U		R1	-	7	10	13	k
	KRC858U				15.4	22	28.6	
	KRC859U				32.9	47	61.1	
Resistor Ratio	KRC857U		R2/R1	-	3.7	4.7	5.7	
	KRC858U				1.7	2.1	2.6	
	KRC859U				0.37	0.47	0.57	

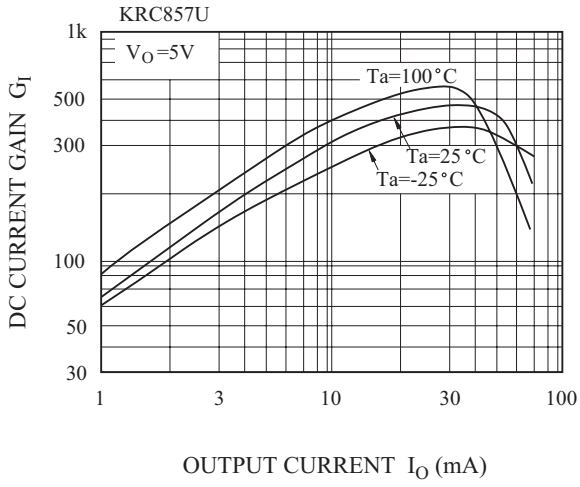
Note : \* Characteristic of Transistor Only.

# KRC857U~KRC859U

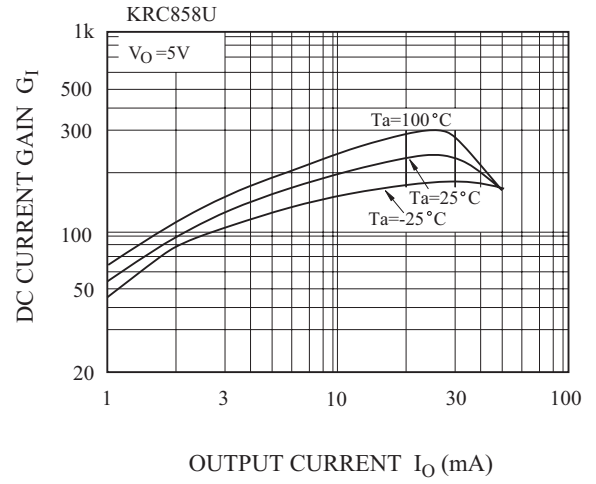


# KRC857U~KRC859U

$G_I - I_O$



$G_I - I_O$



$G_I - I_O$

