

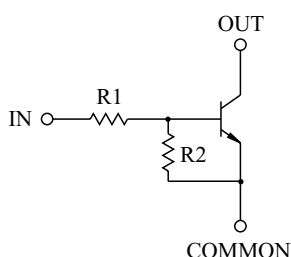
SWITCHING APPLICATION.

INTERFACE CIRCUIT AND DRIVER CIRCUIT APPLICATION.

FEATURES

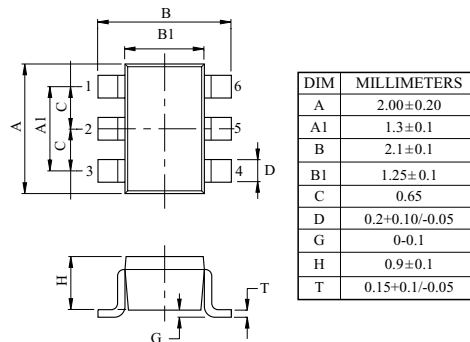
- With Built-in Bias Resistors.
- Simplify Circuit Design.
- Reduce a Quantity of Parts and Manufacturing Process.
- High Packing Density.
- Suffix U : Qualified to AEC-Q101.
ex) KRC857U-RTK/HU

EQUIVALENT CIRCUIT



BIAS RESISTOR VALUES

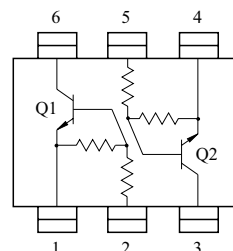
TYPE NO.	R1(k Ω)	R2(k Ω)
KRC857U	10	47
KRC858U	22	47
KRC859U	47	22



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

US6

EQUIVALENT CIRCUIT (TOP VIEW)



MAXIMUM RATING (Ta=25)

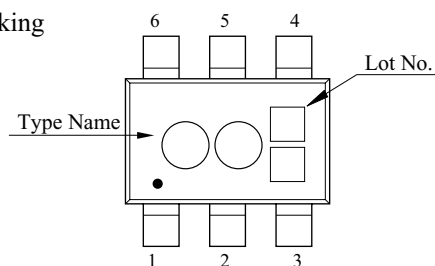
CHARACTERISTIC		SYMBOL	RATING	UNIT
Output Voltage	KRC857U 859U	V _O	50	V
Input Voltage	KRC857U	V _I	30, -6	V
	KRC858U		40, -7	
	KRC859U		40, -15	
Output Current	KRC857U 859U	I _O	100	mA
Power Dissipation		P _D *	200	mW
Operating and Storage Junction Temperature Range		T _j , T _{stg}	-55 150	

* Total Rating.

MARK SPEC

TYPE	KRC857U	KRC858U	KRC859U
MARK	NH	NI	NJ

Marking



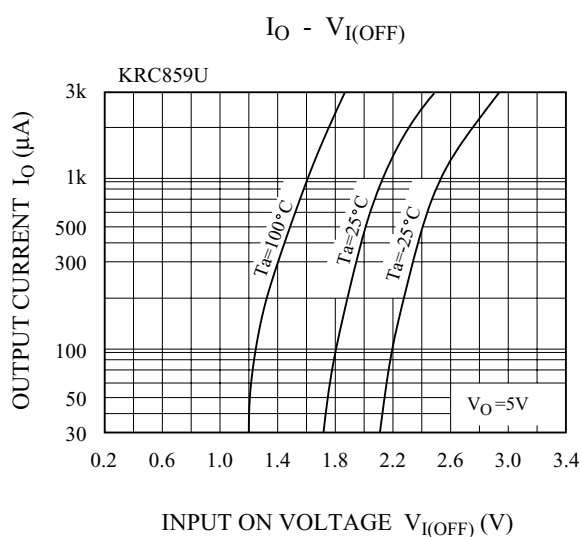
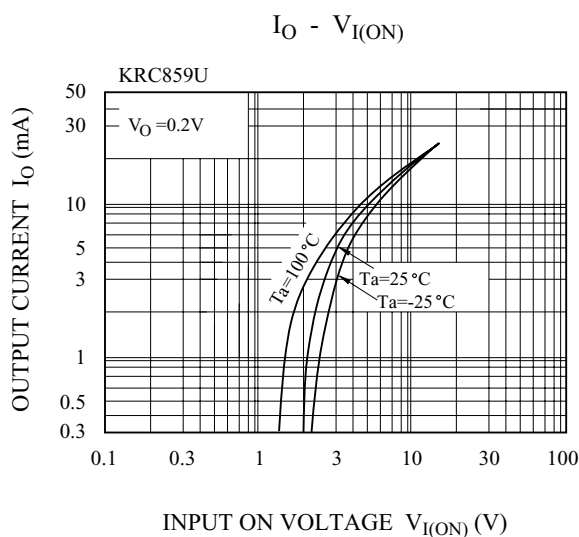
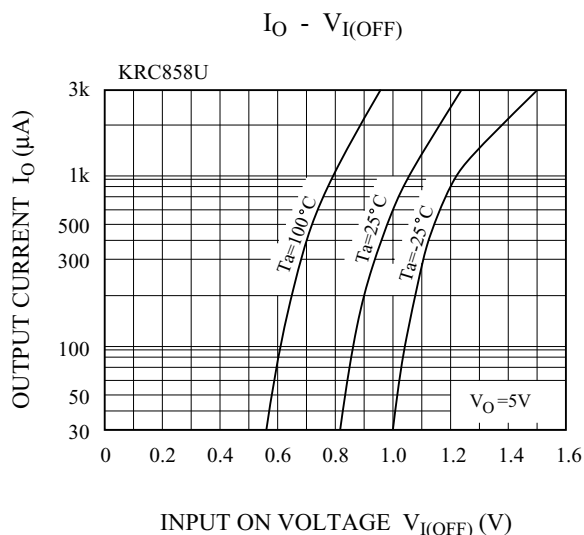
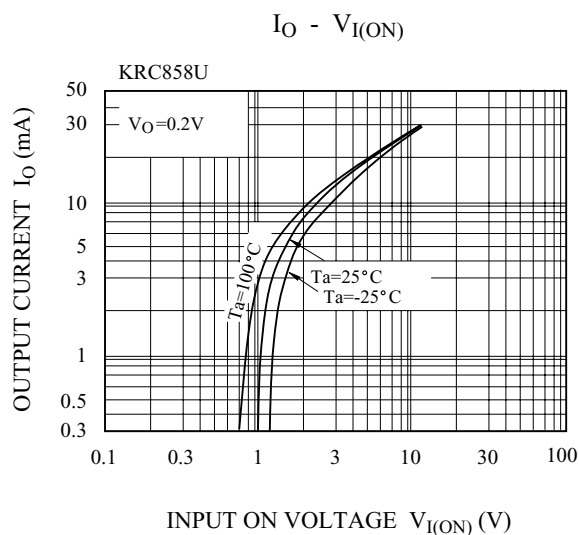
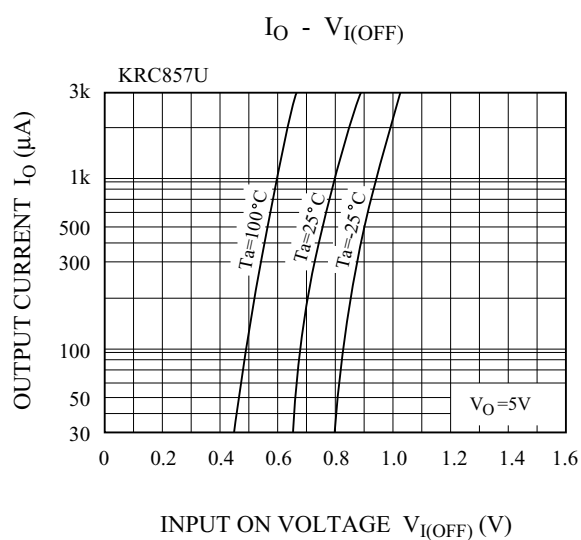
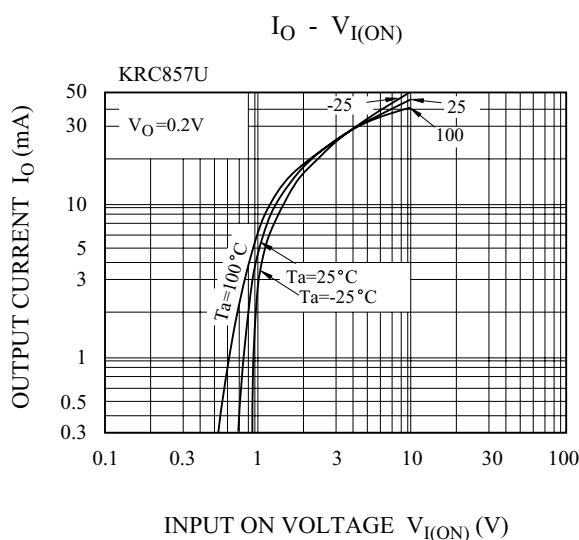
KRC857U~KRC859U

ELECTRICAL CHARACTERISTICS (Ta=25 °C)

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	$V_O=5V, V_{IN}=5V$ $R_L=1k\Omega$	-	0.05	-	μs
		KRC858U		-	0.12	-	
		KRC859U		-	0.26	-	
	Storage Time	KRC857U		-	2.0	-	
		KRC858U		-	2.4	-	
		KRC859U		-	1.5	-	
	Fall Time	KRC857U		-	0.36	-	
		KRC858U		-	0.4	-	
		KRC859U		-	0.41	-	
Input Resistor	KRC857U	R1	-	7	10	13	k Ω
	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	

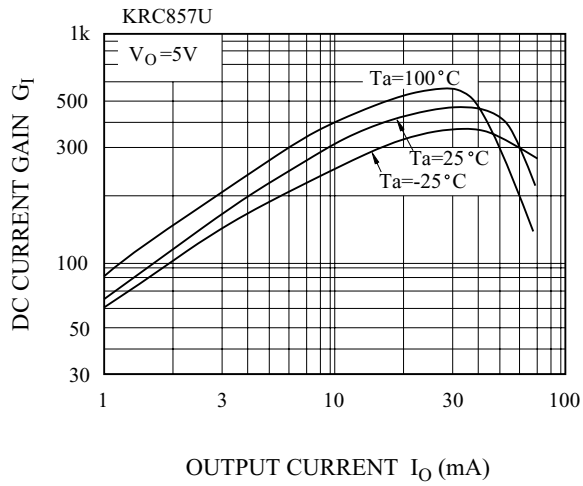
Note : * Characteristic of Transistor Only.

KRC857U~KRC859U

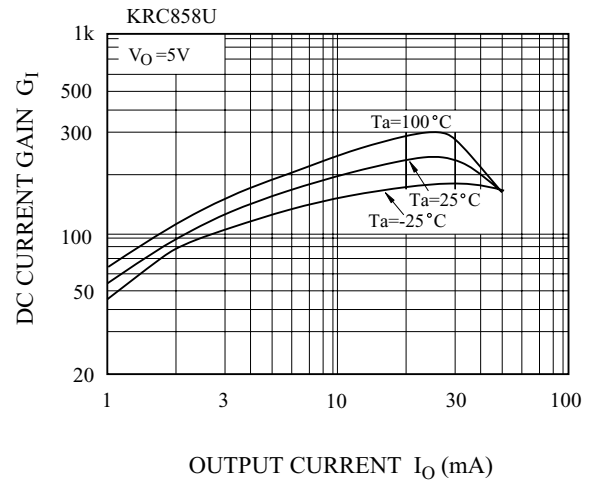


KRC857U~KRC859U

$G_I - I_O$



$G_I - I_O$



$G_I - I_O$

