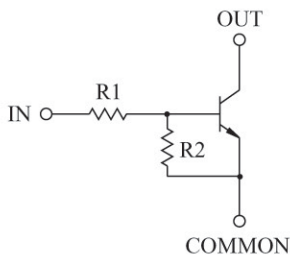


SWITCHING APPLICATION.  
INTERFACE CIRCUIT AND DRIVER CIRCUIT APPLICATION

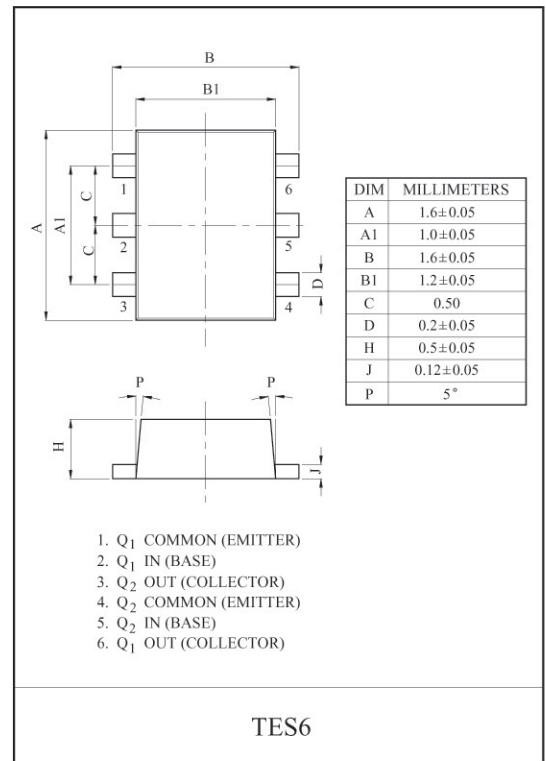
### FEATURES

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

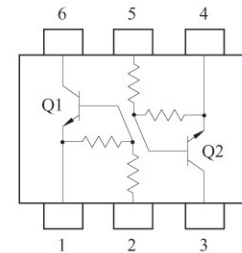
### EQUIVALENT CIRCUIT



TYPE NO.	R1(kΩ)	R2(kΩ)
KRC866E	1	10
KRC867E	2.2	2.2
KRC868E	2.2	10
KRC869E	4.7	10
KRC870E	10	4.7
KRC871E	47	10
KRC872E	100	100



### EQUIVALENT CIRCUIT (TOP VIEW)



### MAXIMUM RATING (Ta=25°C)

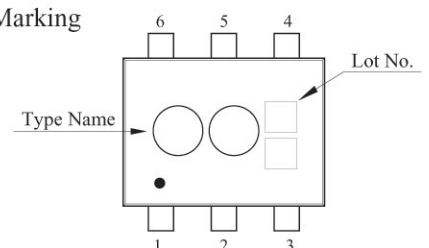
CHARACTERISTIC		SYMBOL	RATING	UNIT
Output Voltage	KRC866E 872E	$V_o$	50	V
Input Voltage	KRC866E	$V_i$	10 -5	V
	KRC867E		12 -10	
	KRC868E		12 -5	
	KRC869E		20 -7	
	KRC870E		30 -10	
	KRC871E		40 -15	
	KRC872E		40, -10	
Output Current	KRC866E~872E	$I_o$	100	mA
Power Dissipation		$P_D^*$	200	mW
Junction Temperature		$T_j$	150	°C
Storage Temperature Range		$T_{stg}$	-55 ~ 150	°C

\* Total Rating.

### MARK SPEC

TYPE	KRC866E	KRC867E	KRC868E	KRC869E	KRC870E	KRC871E	KRC872E
MARK	N2	N4	N5	N6	N7	N8	N9

### Marking



# KRC866E~KRC872E

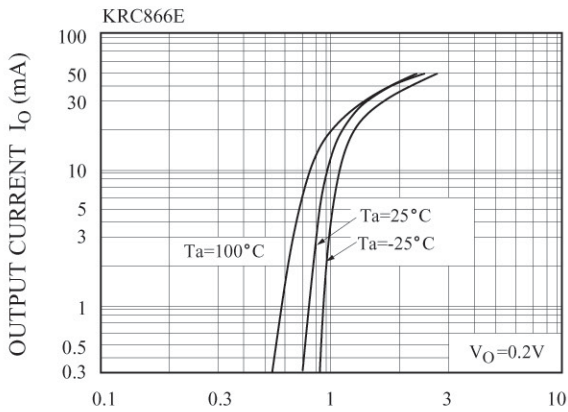
## ELECTRICAL CHARACTERISTICS (Ta=25°C)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Output Cut-off Current	KRC866E~872E	$I_{O(OFF)}$	$V_O=50V, V_I=0$	-	-	500	nA
DC Current Gain	KRC866E	$G_I$	$V_O=5V, I_O=5mA$	33	-	-	
	KRC867E		$V_O=5V, I_O=20mA$	20	-	-	
	KRC868E		$V_O=5V, I_O=10mA$	33	-	-	
	KRC869E		$V_O=5V, I_O=10mA$	30	-	-	
	KRC870E		$V_O=5V, I_O=10mA$	24	-	-	
	KRC871E		$V_O=5V, I_O=5mA$	33	-	-	
	KRC872E		$V_O=5V, I_O=5mA$	62	-	-	
Output Voltage	KRC866E	$V_{O(ON)}$	$I_O=10mA, I_I=0.5mA$	-	-	0.3	V
	KRC867E		$I_O=10mA, I_I=0.5mA$	-	0.1	0.3	
	KRC868E		$I_O=10mA, I_I=0.5mA$	-	-	0.3	
	KRC869E		$I_O=10mA, I_I=0.5mA$	-	0.1	0.3	
	KRC870E		$I_O=10mA, I_I=0.5mA$	-	0.1	0.3	
	KRC871E		$I_O=10mA, I_I=0.5mA$	-	0.1	0.3	
	KRC872E		$I_O=5mA, I_I=0.25mA$	-	0.1	0.3	
Input Voltage (ON)	KRC866E	$V_{I(ON)}$	$V_O=0.3V, I_O=20mA$	-	0.98	3	V
	KRC867E		$V_O=0.3V, I_O=20mA$	-	1.83	3	
	KRC868E		$V_O=0.3V, I_O=20mA$	-	1.22	3	
	KRC869E		$V_O=0.3V, I_O=20mA$	-	1.76	2.5	
	KRC870E		$V_O=0.3V, I_O=2mA$	-	2	3	
	KRC871E		$V_O=0.3V, I_O=2mA$	-	3.9	5	
	KRC872E		$V_O=0.3V, I_O=1mA$	-	1.64	3	
Input Voltage (OFF)	KRC866E	$V_{I(OFF)}$	$V_{CC}=5V, I_O=100\mu A$	0.3	0.63	-	V
	KRC867E			0.5	1.15	-	
	KRC868E			0.3	0.67	-	
	KRC869E			0.3	0.82	-	
	KRC870E			0.8	1.68	-	
	KRC871E			1	3.09	-	
	KRC872E			0.5	1.17	-	
Transition Frequency	KRC866E~872E	$f_T^*$	$V_O=10V, I_O=5mA$	-	250	-	MHz
Input Current	KRC866E	$I_I$	$V_I=5V$	-	-	7.2	mA
	KRC867E			-	-	3.8	
	KRC868E			-	-	3.8	
	KRC869E			-	-	1.8	
	KRC870E			-	-	0.88	
	KRC871E			-	-	0.16	
	KRC872E			-	-	0.15	
Input Resistor	KRC866E	R1	-	0.7	1	1.3	k $\Omega$
	KRC867E			1.54	2.2	2.86	
	KRC868E			1.54	2.2	2.86	
	KRC869E			3.29	4.7	6.11	
	KRC870E			7	10	13	
	KRC871E			32.9	47	61.1	
	KRC872E			70	100	130	
Resistor Ratio	KRC866E	R2/R1	-	8	10	12	
	KRC867E			0.8	1.0	1.2	
	KRC868E			3.6	4.5	5.5	
	KRC869E			1.7	2.1	2.6	
	KRC870E			0.37	0.47	0.57	
	KRC871E			0.17	0.21	0.26	
	KRC872E			0.8	1.0	1.2	

Note : \* Characteristic of Transistor Only.

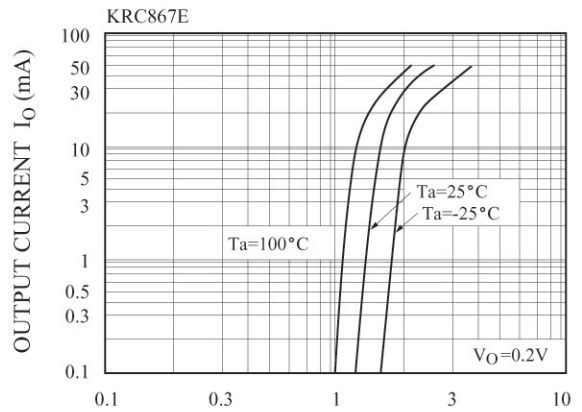
# KRC866E~KRC872E

$I_O - V_{I(ON)}$



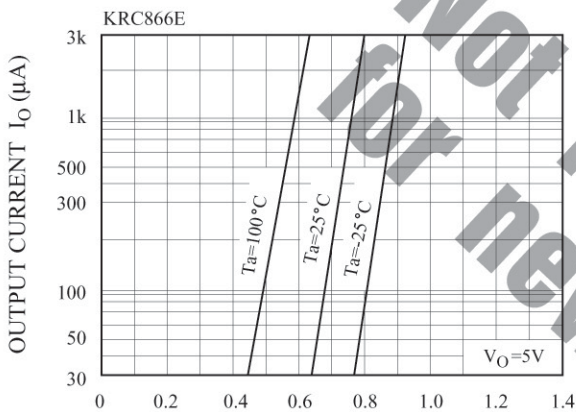
INPUT ON VOLTAGE  $V_{I(ON)}$  (V)

$I_O - V_{I(ON)}$



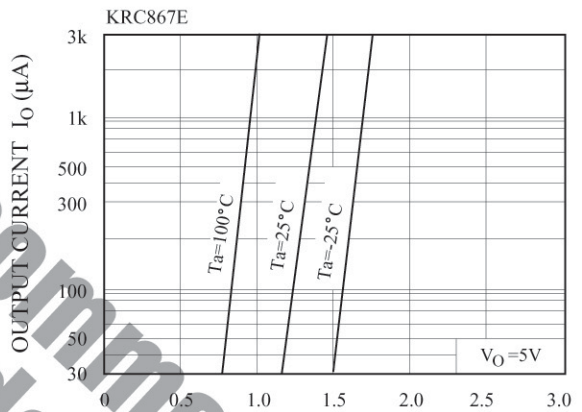
INPUT ON VOLTAGE  $V_{I(ON)}$  (V)

$I_O - V_{I(OFF)}$



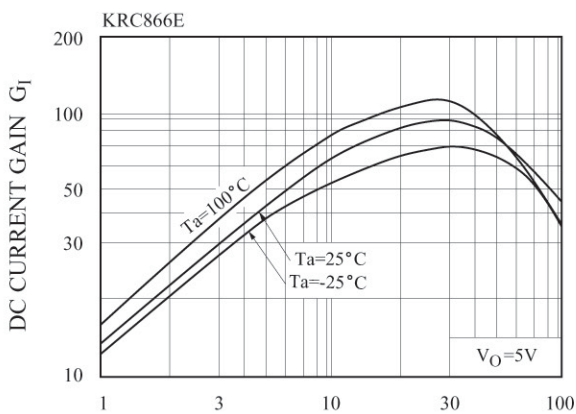
INPUT OFF VOLTAGE  $V_{I(OFF)}$  (V)

$I_O - V_{I(OFF)}$



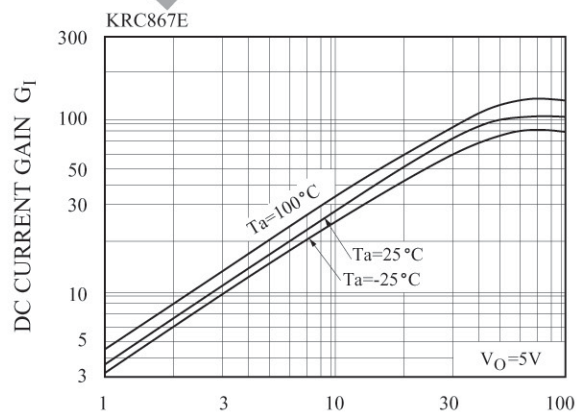
INPUT OFF VOLTAGE  $V_{I(OFF)}$  (V)

$G_I - I_O$



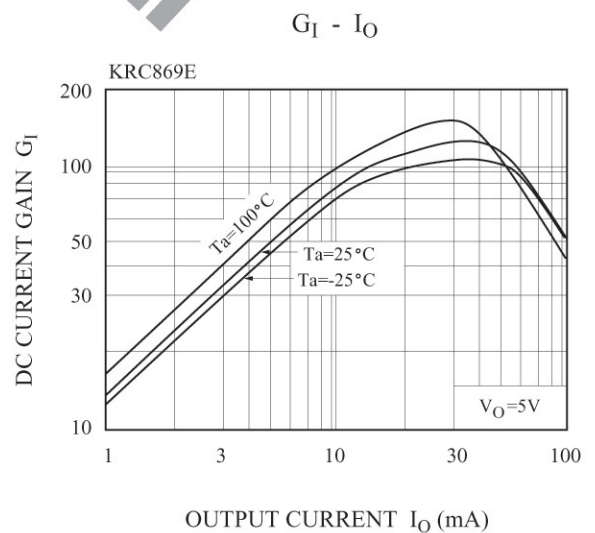
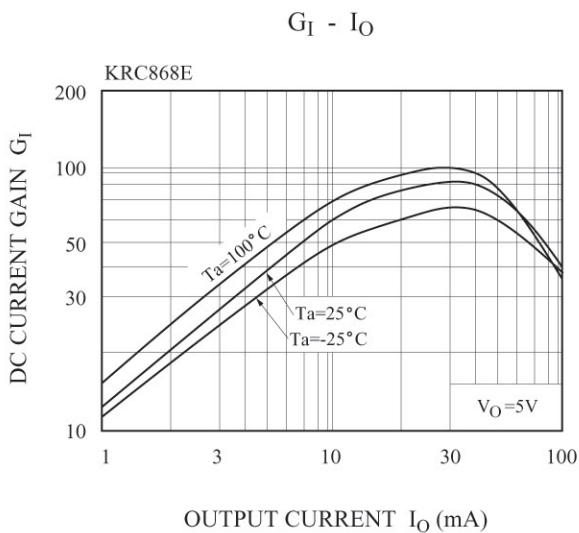
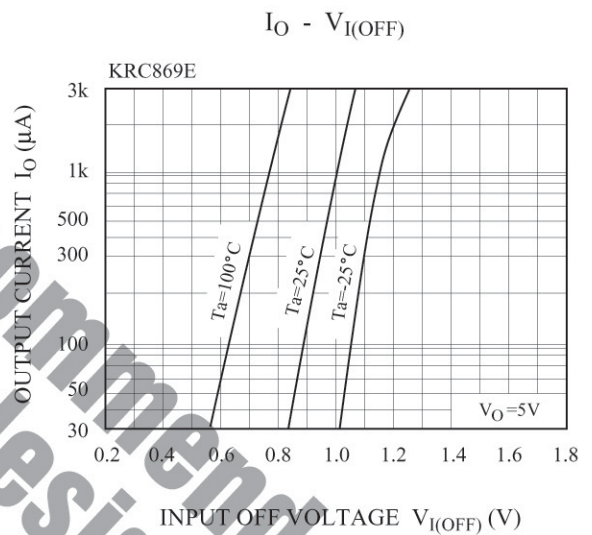
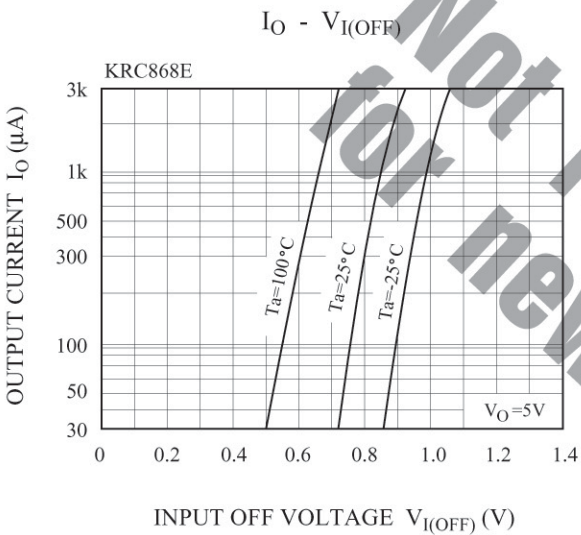
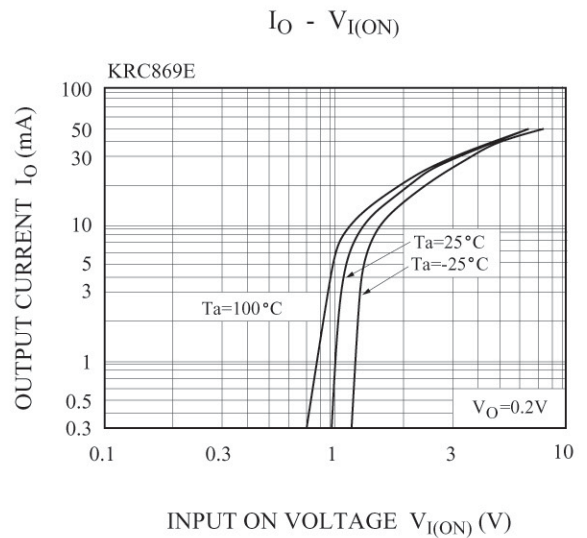
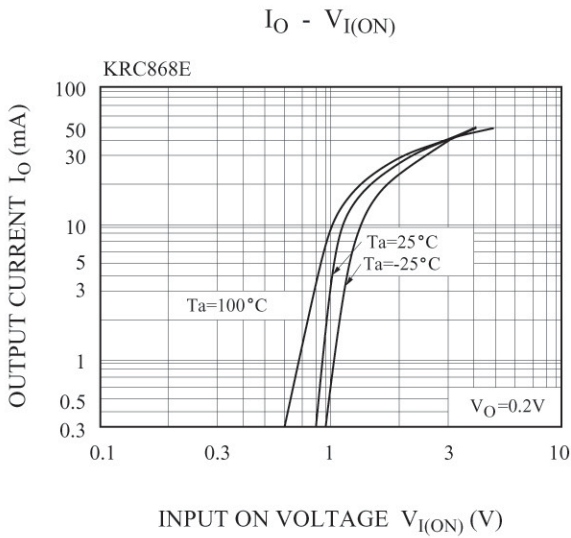
OUTPUT CURRENT  $I_O$  (mA)

$G_I - I_O$



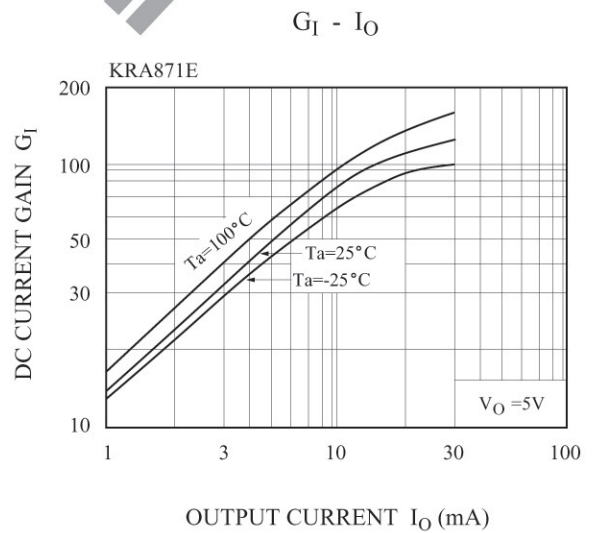
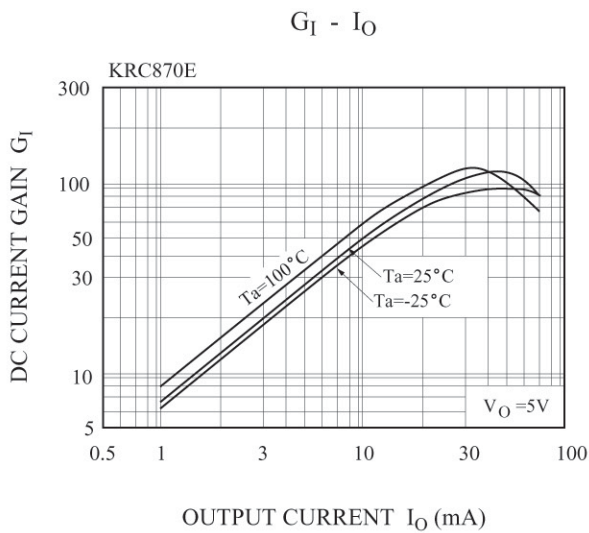
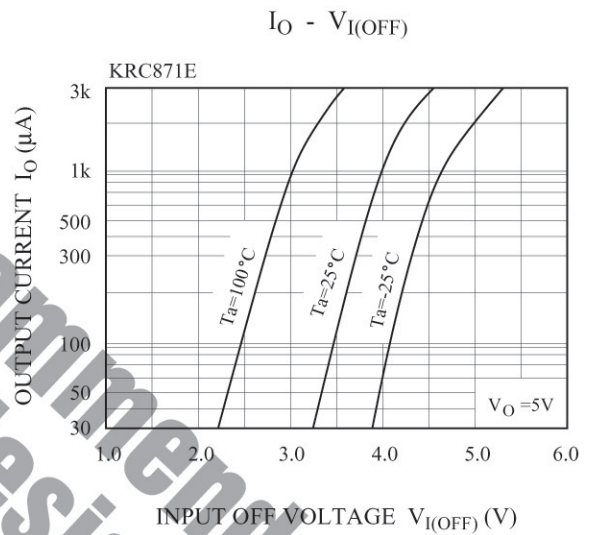
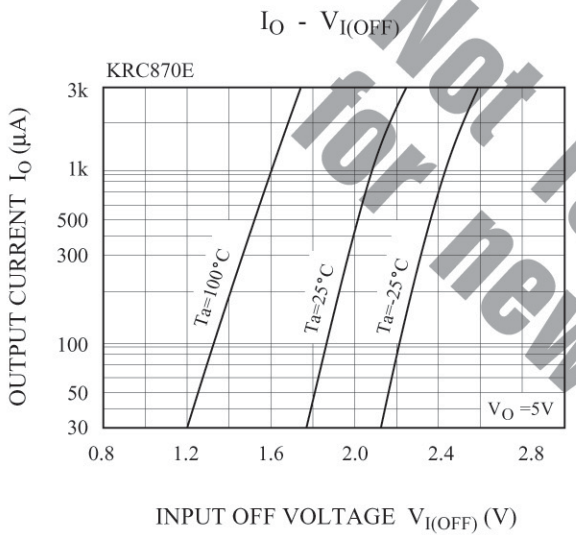
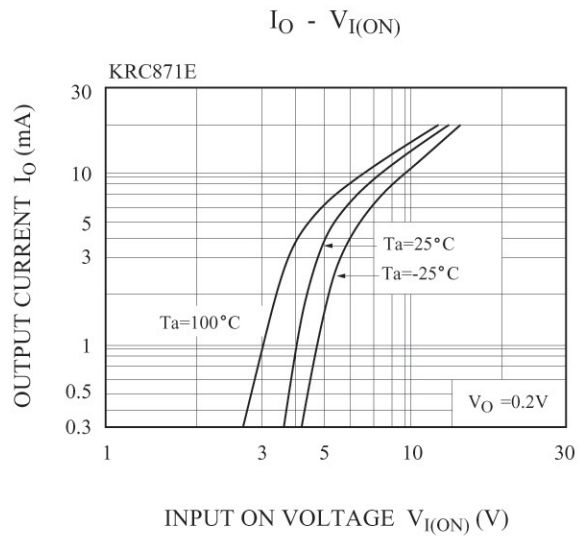
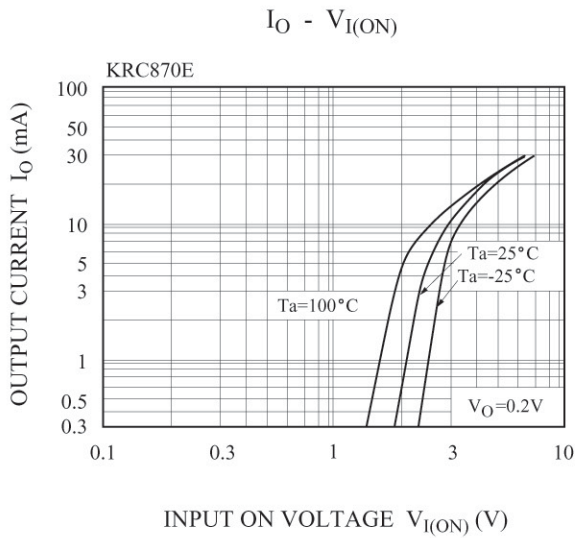
OUTPUT CURRENT  $I_O$  (mA)

# KRC866E~KRC872E



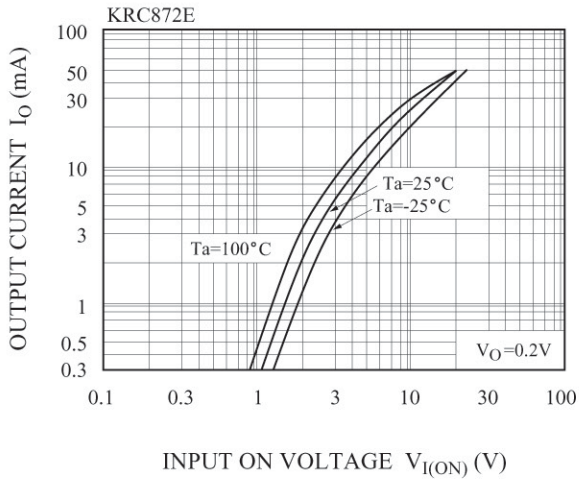


# KRC866E~KRC872E

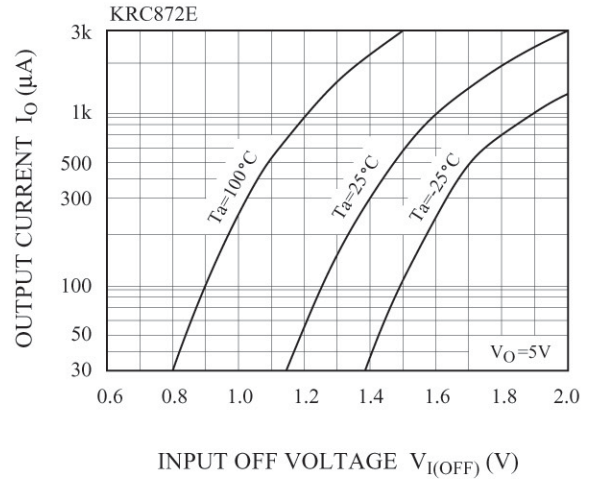


# KRC866E~KRC872E

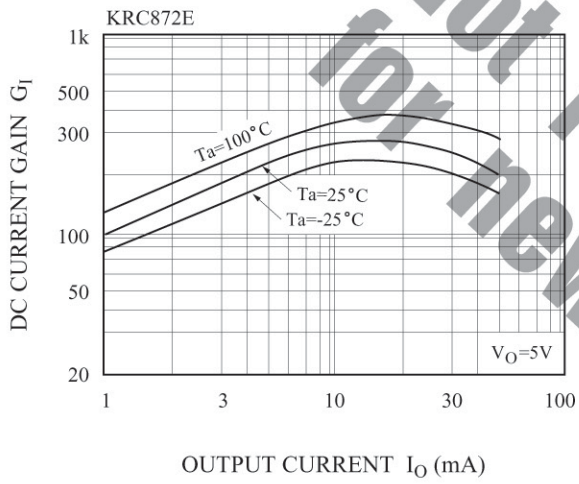
$I_O - V_{I(ON)}$



$I_O - V_{I(OFF)}$



$G_I - I_O$



Not recommend  
for new design