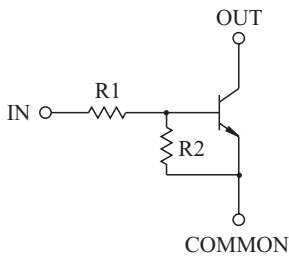


SWITCHING APPLICATION.  
INTERFACE CIRCUIT AND DRIVER CIRCUIT APPLICATION.

### FEATURES

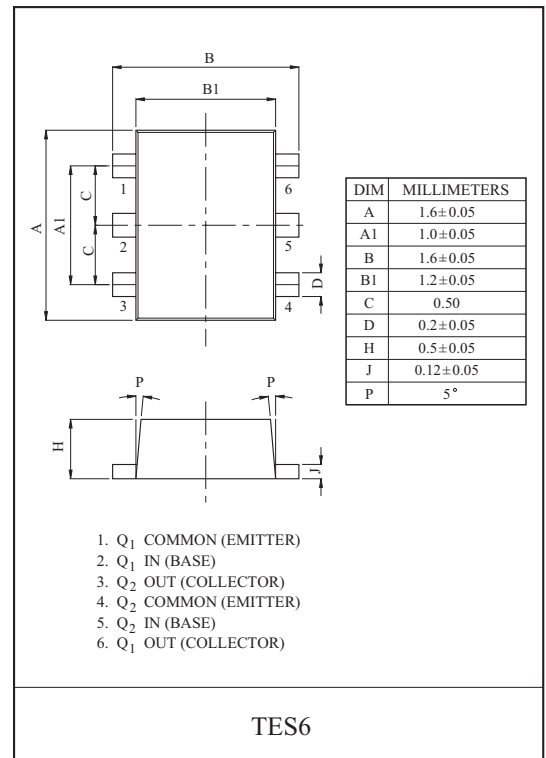
- With Built-in Bias Resistors.
- Simplify Circuit Design.
- Reduce a Quantity of Parts and Manufacturing Process.
- High Packing Density.

### EQUIVALENT CIRCUIT

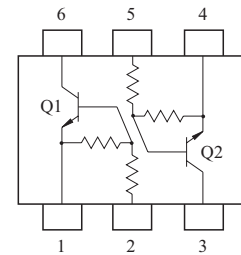


### BIAS RESISTOR VALUES

TYPE NO.	R1(k )	R2(k )
KRC851E	4.7	4.7
KRC852E	10	10
KRC853E	22	22
KRC854E	47	47
KRC855E	2.2	47
KRC856E	4.7	47



### EQUIVALENT CIRCUIT (TOP VIEW)



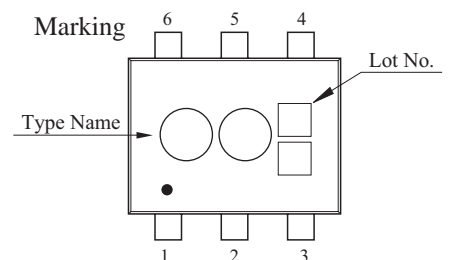
### MAXIMUM RATING (Ta=25 )

CHARACTERISTIC	SYMBOL	RATING	UNIT
Output Voltage	$V_O$	50	V
Input Voltage	$V_I$	20, -10	V
		30, -10	
		40, -10	
		40, -10	
		12, -5	
		20, -5	
Output Current	$I_O$	100	mA
Power Dissipation	$P_D^*$	200	mW
Junction Temperature	$T_j$	150	
Storage Temperature Range	$T_{stg}$	-55 150	

\* Total Rating.

### MARK SPEC

TYPE	KRC851E	KRC852E	KRC853E	KRC854E	KRC855E	KRC856E
MARK	NA	NB	NC	ND	NE	NF



# KRC851E~KRC856E

## ELECTRICAL CHARACTERISTICS (Ta=25 °C)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Output Cut-off Current	KRC851E 856E	$I_{O(OFF)}$	$V_O=50V, V_I=0$	-	-	500	nA
DC Current Gain	KRC851E	$G_I$	$V_O=5V, I_O=10mA$	30	55	-	
	KRC852E			50	80	-	
	KRC853E			70	120	-	
	KRC854E			80	200	-	
	KRC855E			80	200	-	
	KRC856E			80	200	-	
Output Voltage	KRC851E 856E	$V_{O(ON)}$	$I_O=10mA, I_I=0.5mA$	-	0.1	0.3	V
Input Voltage (ON)	KRC851E	$V_{I(ON)}$	$V_O=0.2V, I_O=5mA$	-	1.5	2.0	V
	KRC852E			-	1.8	2.4	
	KRC853E			-	2.1	3.0	
	KRC854E			-	2.8	5.0	
	KRC855E			-	0.8	1.1	
	KRC856E			-	0.9	1.3	
Input Voltage (OFF)	KRC851E 854E	$V_{I(OFF)}$	$V_O=5V, I_O=0.1mA$	1.0	1.2	-	V
	KRC855E 856E			0.5	0.65	-	
Transition Frequency	KRC851E 856E	$f_T^*$	$V_O=10V, I_O=5mA$	-	200	-	MHz
Input Current	KRC851E	$I_I$	$V_I=5V$	-	-	1.8	mA
	KRC852E			-	-	0.88	
	KRC853E			-	-	0.36	
	KRC854E			-	-	0.18	
	KRC855E			-	-	3.6	
	KRC856E			-	-	1.8	
Input Resistor	KRC851E	R1	-	3.29	4.7	6.11	k
	KRC852E			7	10	13	
	KRC853E			15.4	22	28.6	
	KRC854E			32.9	47	61.1	
	KRC855E			1.54	2.2	2.86	
	KRC856E			3.29	4.7	6.11	
Resistor Ratio	KRC851E 854E	R2/R1	-	0.8	1.0	1.2	
	KRC855E			17	21	26	
	KRC856E			8	10	12	

Note : \* Characteristic of Transistor Only.

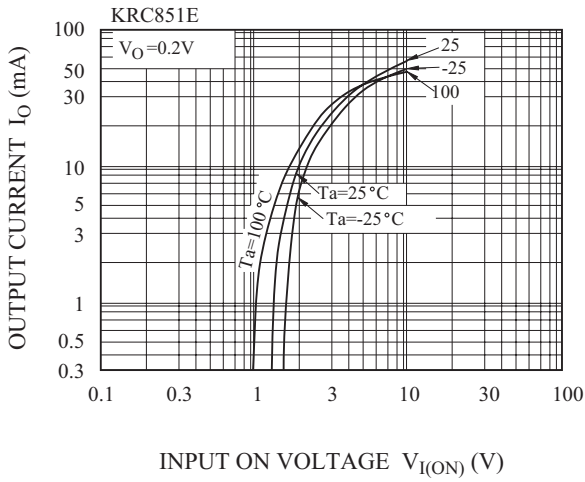
# KRC851E~KRC856E

## ELECTRICAL CHARACTERISTICS (Ta=25 )

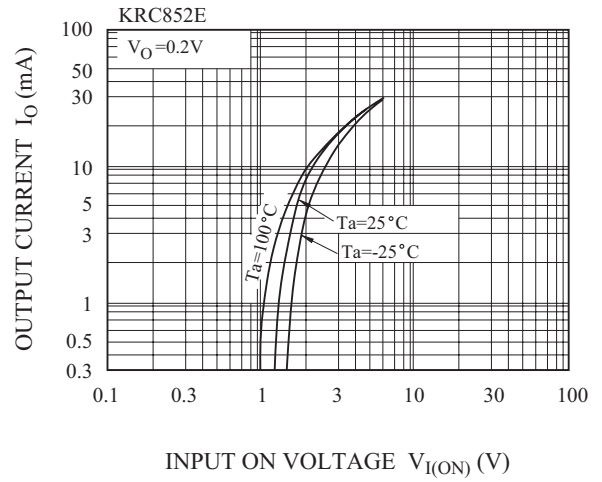
CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT	
Switching Time	Rise Time	KRC851E	V <sub>O</sub> =5V V <sub>IN</sub> =5V R <sub>L</sub> =1k	-	0.03	-	μs	
		KRC852E		-	0.05	-		
		KRC853E		-	0.12	-		
		KRC854E		-	0.22	-		
		KRC855E		-	0.01	-		
		KRC856E		-	0.03	-		
	Storage Time	KRC851E		t <sub>stg</sub>	-	2.0		-
		KRC852E		-	-	2.0		-
		KRC853E		-	-	2.0		-
		KRC854E		-	-	2.0		-
		KRC855E		-	-	2.0		-
		KRC856E		-	-	2.0		-
	Fall Time	KRC851E		t <sub>f</sub>	-	0.12		-
		KRC852E		-	-	0.36		-
		KRC853E		-	-	0.35		-
		KRC854E		-	-	0.6		-
		KRC855E		-	-	0.1		-
		KRC856E		-	-	0.19		-

# KRC851E~KRC856E

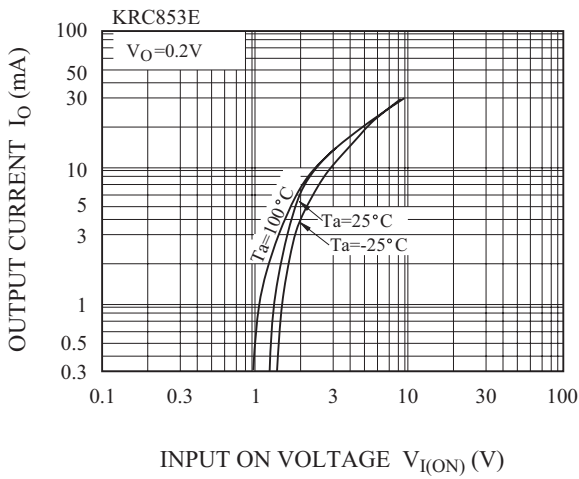
$I_O - V_{I(ON)}$



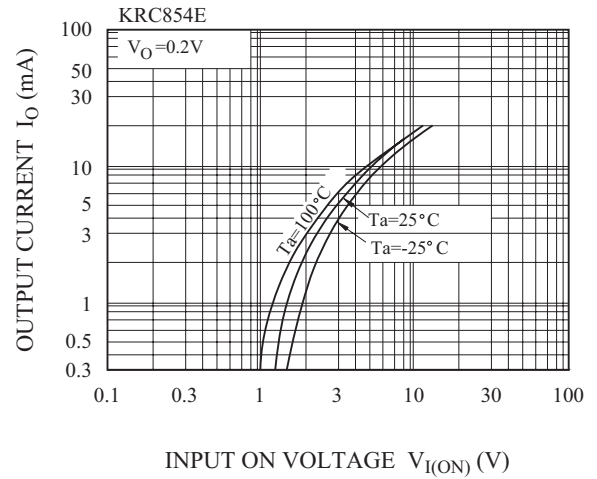
$I_O - V_{I(ON)}$



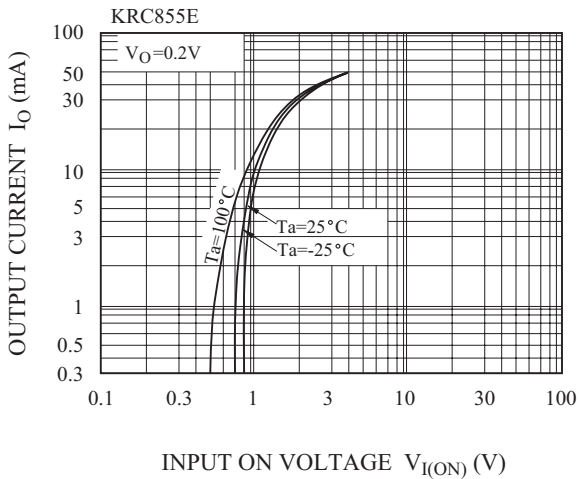
$I_O - V_{I(ON)}$



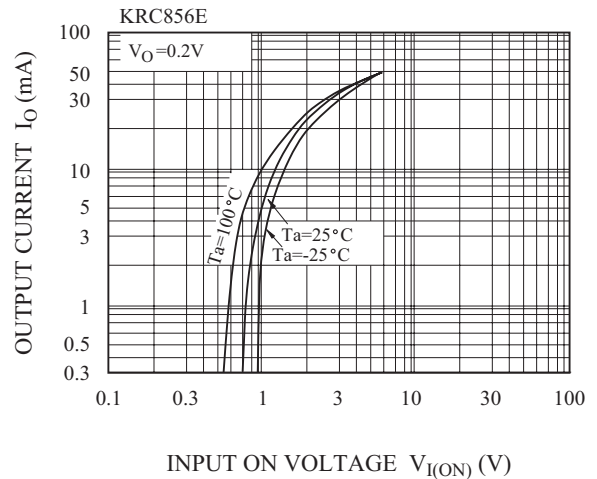
$I_O - V_{I(ON)}$



$I_O - V_{I(ON)}$

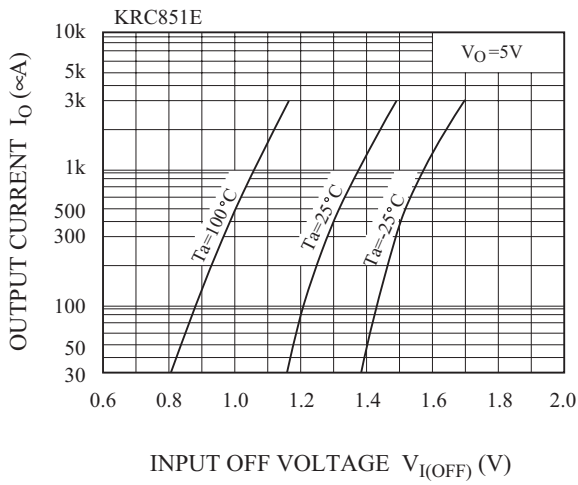


$I_O - V_{I(ON)}$

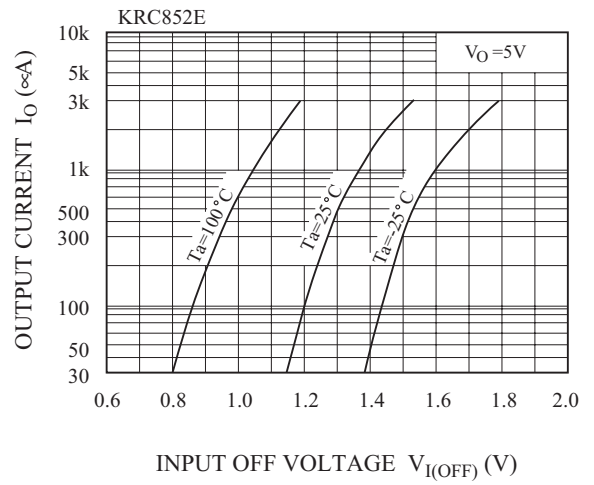


# KRC851E~KRC856E

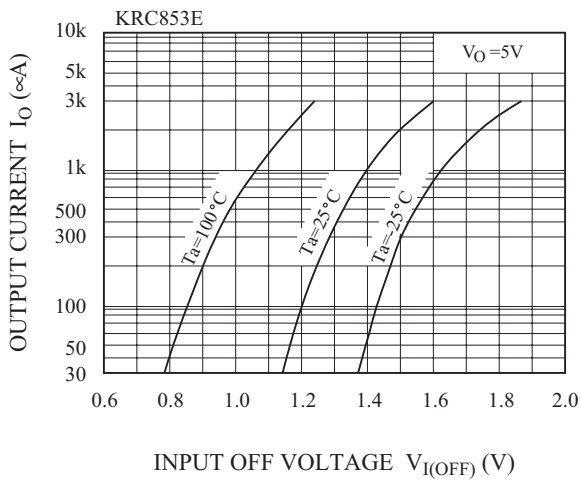
$I_O - V_{I(OFF)}$



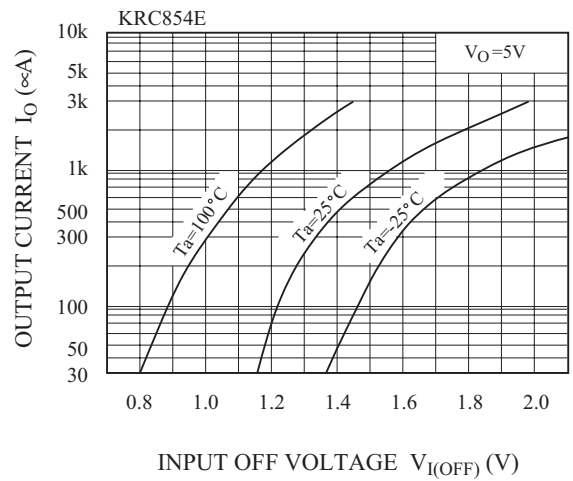
$I_O - V_{I(OFF)}$



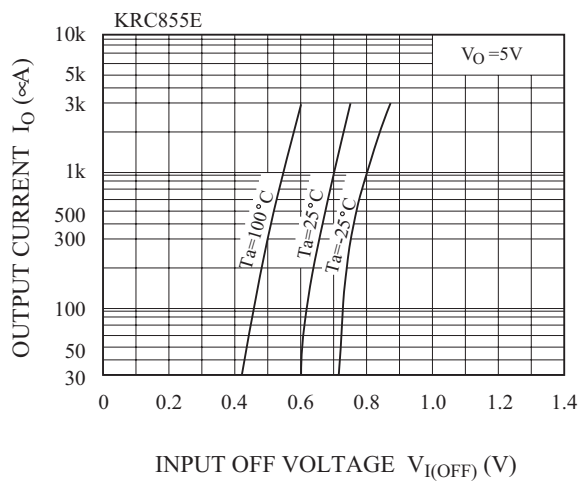
$I_O - V_{I(OFF)}$



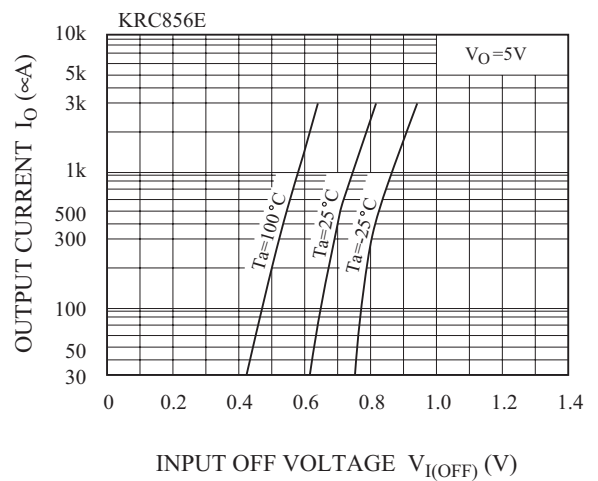
$I_O - V_{I(OFF)}$



$I_O - V_{I(OFF)}$

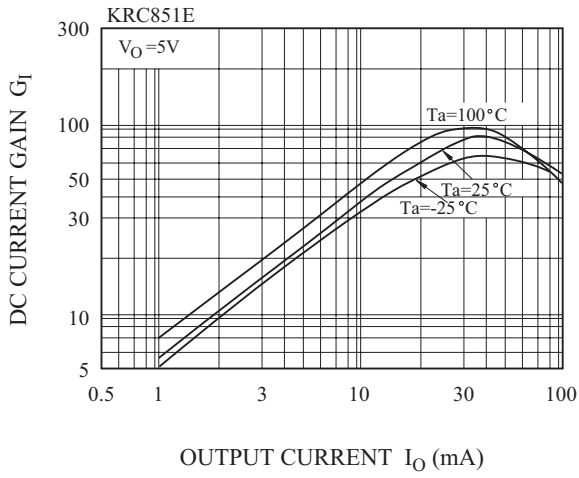


$I_O - V_{I(OFF)}$

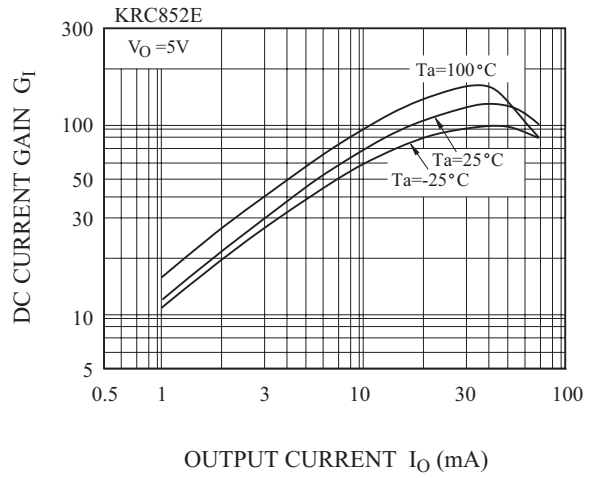


# KRC851E~KRC856E

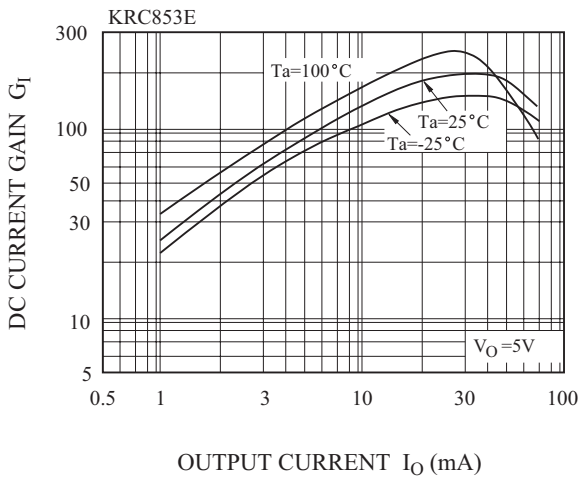
$G_I - I_O$



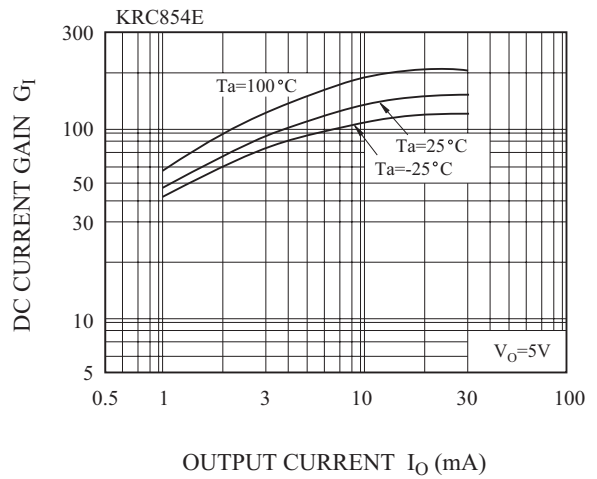
$G_I - I_O$



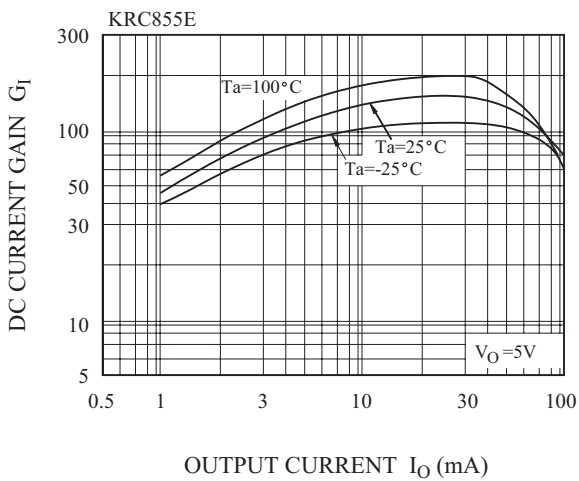
$G_I - I_O$



$G_I - I_O$



$G_I - I_O$



$G_I - I_O$

