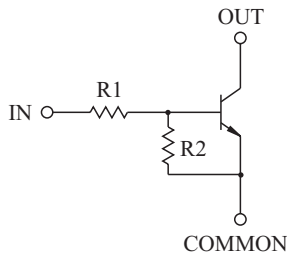


SWITCHING APPLICATION.
INTERFACE CIRCUIT AND DRIVER CIRCUIT APPLICATION.

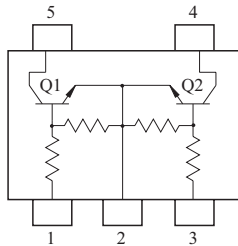
FEATURES

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

EQUIVALENT CIRCUIT

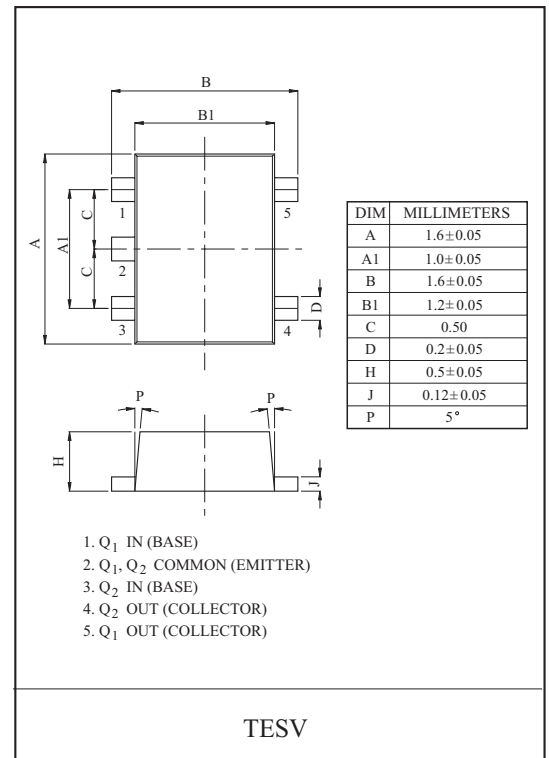


EQUIVALENT CIRCUIT (TOP VIEW)



BIAS RESISTOR VALUES

TYPE NO.	R1(k Ω)	R2(k Ω)
KRC651E	4.7	4.7
KRC652E	10	10
KRC653E	22	22
KRC654E	47	47
KRC655E	2.2	47
KRC656E	4.7	47



MAXIMUM RATING (Ta=25 $^{\circ}$ C)

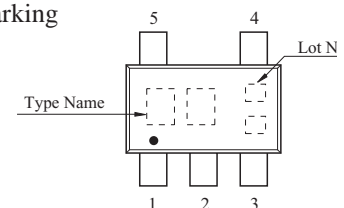
CHARACTERISTIC		SYMBOL	RATING	UNIT
Output Voltage	KRC651E 656E	V_O	50	V
Input Voltage	KRC651E	V_I	20, -10	V
	KRC652E		30, -10	
	KRC653E		40, -10	
	KRC654E		40, -10	
	KRC655E		12, -5	
	KRC656E		20, -5	
Output Current	KRC651E 656E	I_O	100	mA
Power Dissipation		P_D^*	200	mW
Junction Temperature		T_j	150	
Storage Temperature Range		T_{stg}	-55 150	
Operating Junction Temperature Range		$T_{j(opr)}$	-55 150	

* Total Rating.

MARK SPEC

TYPE	KRC651E	KRC652E	KRC653E	KRC654E	KRC655E	KRC656E
MARK	NA	NB	NC	ND	NE	NF

Marking



KRC651E~KRC656E

ELECTRICAL CHARACTERISTICS (Ta=25 °C)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Output Cut-off Current	KRC651E 656E	$I_{O(OFF)}$	$V_O=50V, V_I=0$	-	-	500	nA
DC Current Gain	KRC651E	G_I	$V_O=5V, I_O=10mA$	30	55	-	
	KRC652E			50	80	-	
	KRC653E			70	120	-	
	KRC654E			80	200	-	
	KRC655E			80	200	-	
	KRC656E			80	200	-	
Output Voltage	KRC651E 656E	$V_{O(ON)}$	$I_O=10mA, I_I=0.5mA$	-	0.1	0.3	V
Input Voltage (ON)	KRC651E	$V_{I(ON)}$	$V_O=0.2V, I_O=5mA$	-	1.5	2.0	V
	KRC652E			-	1.8	2.4	
	KRC653E			-	2.1	3.0	
	KRC654E			-	2.8	5.0	
	KRC655E			-	0.8	1.1	
	KRC656E			-	0.9	1.3	
Input Voltage (OFF)	KRC651E 654E	$V_{I(OFF)}$	$V_O=5V, I_O=0.1mA$	1.0	1.2	-	V
	KRC655E 656E			0.5	0.65	-	
Transition Frequency	KRC651E 656E	f_T^*	$V_O=10V, I_O=5mA$	-	200	-	MHz
Input Current	KRC651E	I_I	$V_I=5V$	-	-	1.8	mA
	KRC652E			-	-	0.88	
	KRC653E			-	-	0.36	
	KRC654E			-	-	0.18	
	KRC655E			-	-	3.6	
	KRC656E			-	-	1.8	
Input Resistor	KRC651E	R1	-	3.29	4.7	6.11	k
	KRC652E			7	10	13	
	KRC653E			15.4	22	28.6	
	KRC654E			32.9	47	61.1	
	KRC655E			1.54	2.2	2.86	
	KRC656E			3.29	4.7	6.11	
Resistor Ratio	KRC651E 654E	R2/R1	-	0.8	1.0	1.2	
	KRC655E			17	21	26	
	KRC656E			8	10	12	

Note : * Characteristic of Transistor Only.

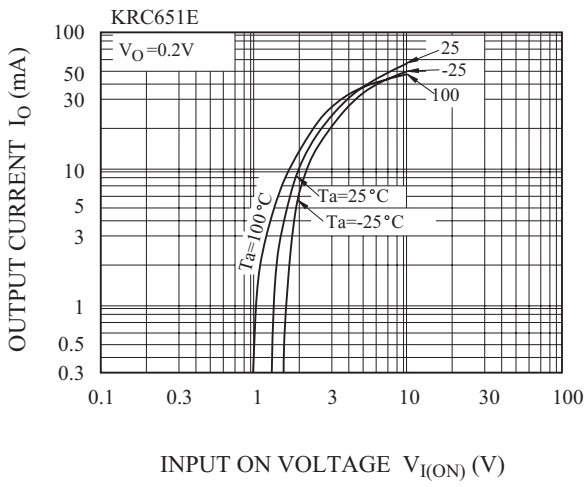
KRC651E~KRC656E

ELECTRICAL CHARACTERISTICS (Ta=25)

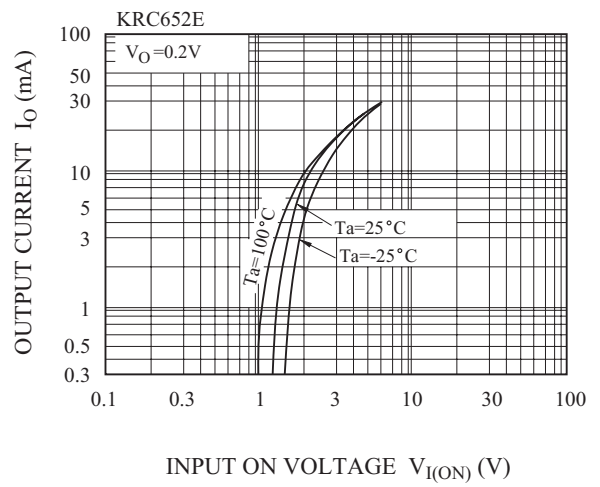
CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Switching Time	Rise Time	KRC651E	V _O =5V V _{IN} =5V R _L =1k	-	0.03	-	μs
		KRC652E		-	0.05	-	
		KRC653E		-	0.12	-	
		KRC654E		-	0.22	-	
		KRC655E		-	0.01	-	
		KRC656E		-	0.03	-	
	Storage Time	KRC651E		-	2.0	-	
		KRC652E		-	2.0	-	
		KRC653E		-	2.0	-	
		KRC654E		-	2.0	-	
		KRC655E		-	2.0	-	
		KRC656E		-	2.0	-	
	Fall Time	KRC651E		-	0.12	-	
		KRC652E		-	0.36	-	
		KRC653E		-	0.35	-	
		KRC654E		-	0.6	-	
		KRC655E		-	0.1	-	
		KRC656E		-	0.19	-	

KRC651E~KRC656E

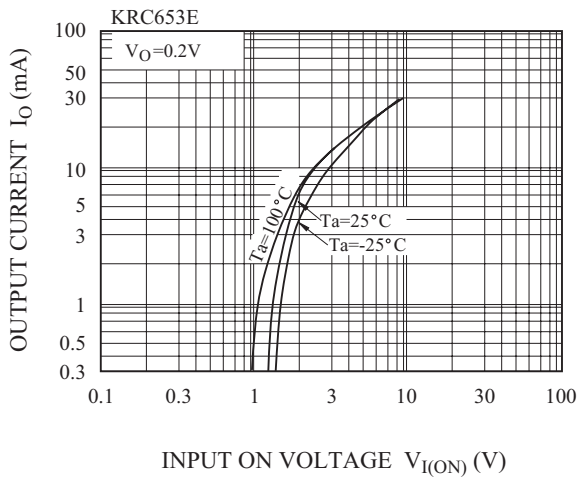
$I_O - V_{I(ON)}$



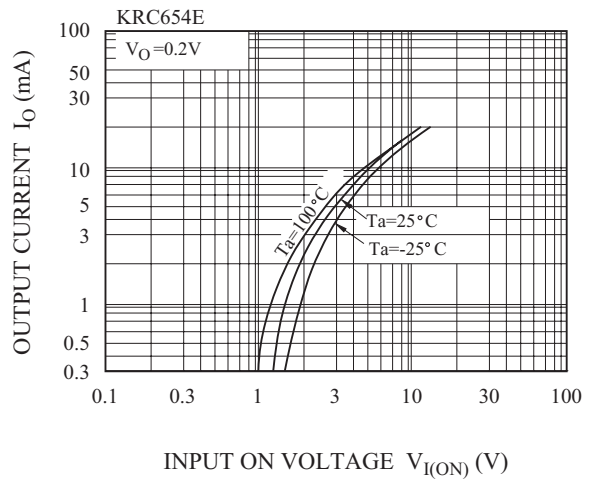
$I_O - V_{I(ON)}$



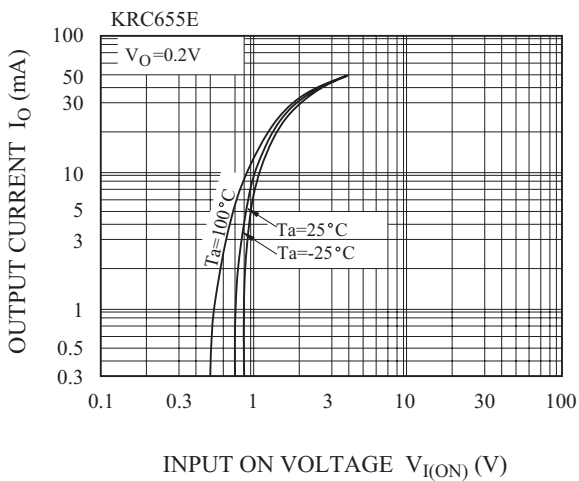
$I_O - V_{I(ON)}$



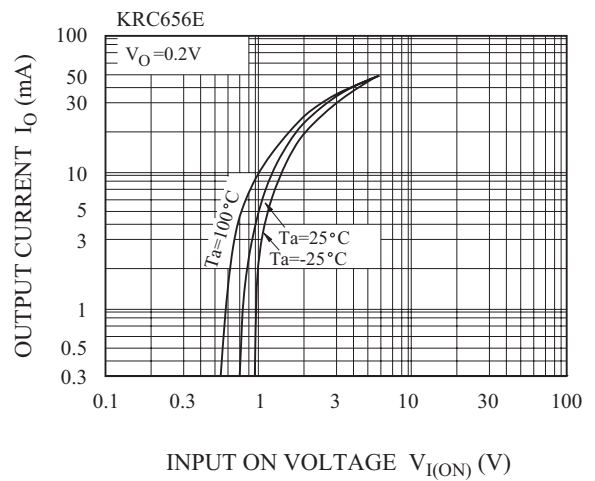
$I_O - V_{I(ON)}$



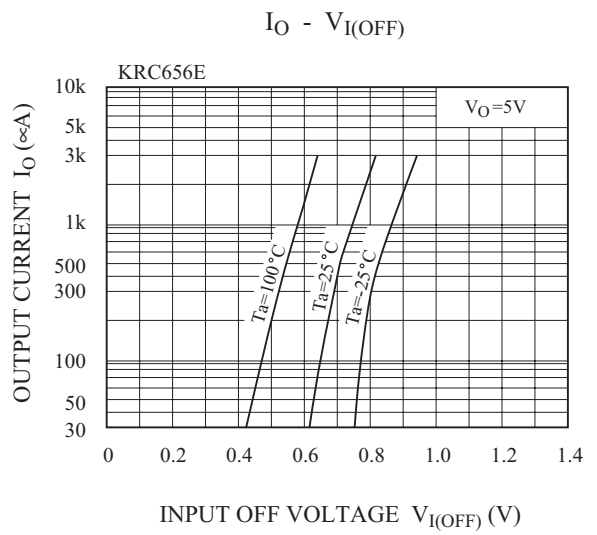
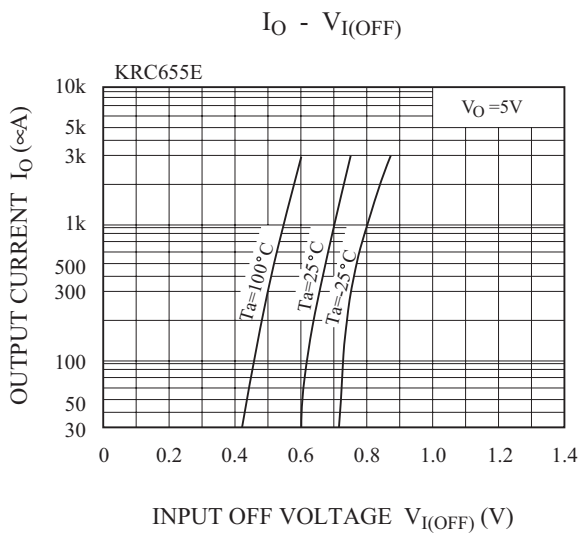
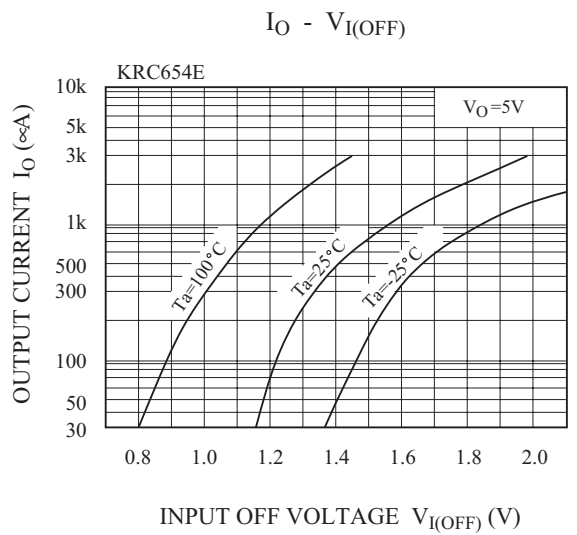
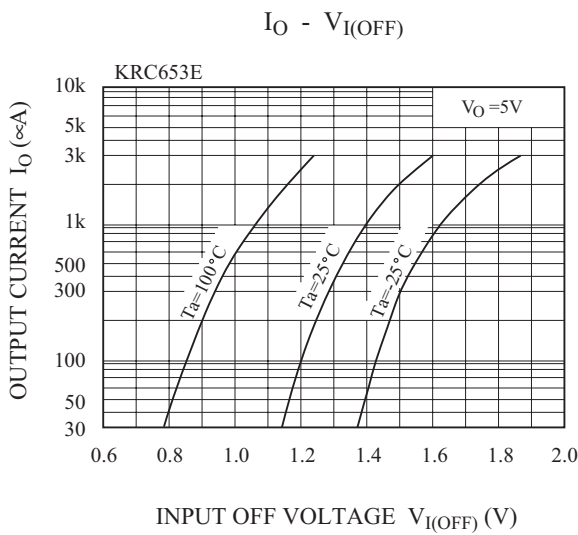
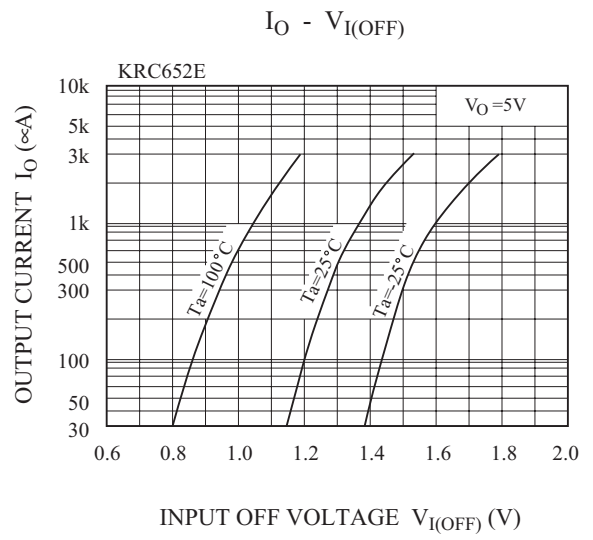
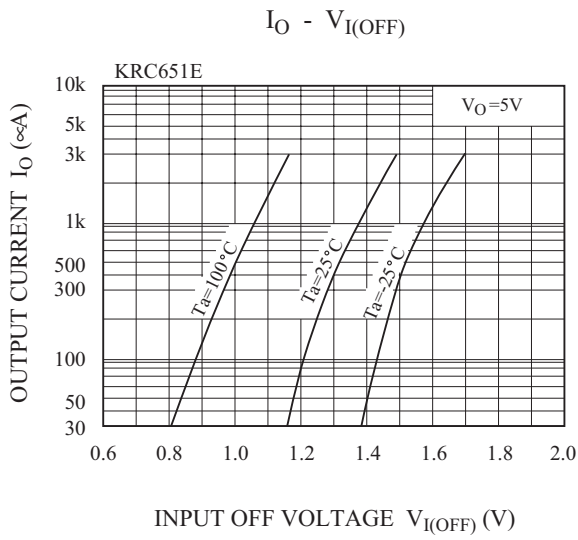
$I_O - V_{I(ON)}$



$I_O - V_{I(ON)}$

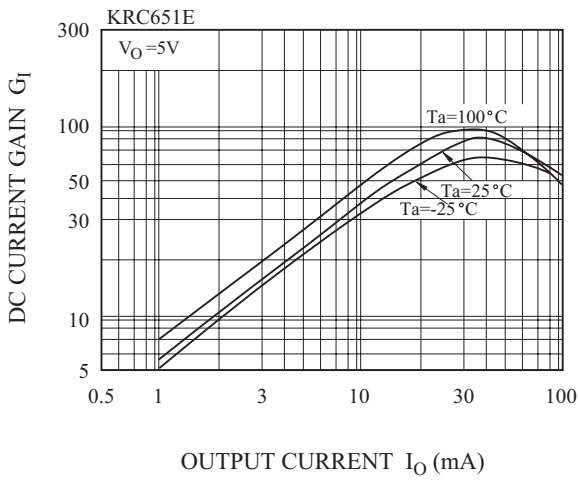


KRC651E~KRC656E

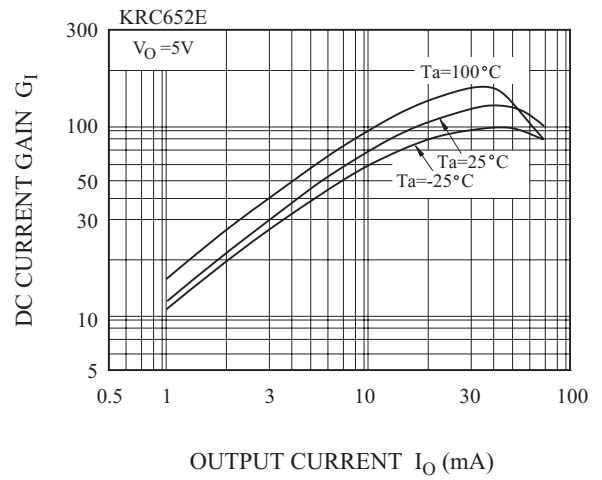


KRC651E~KRC656E

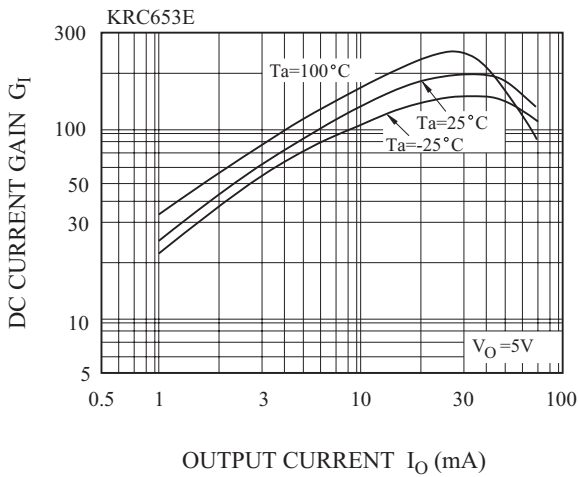
$G_I - I_O$



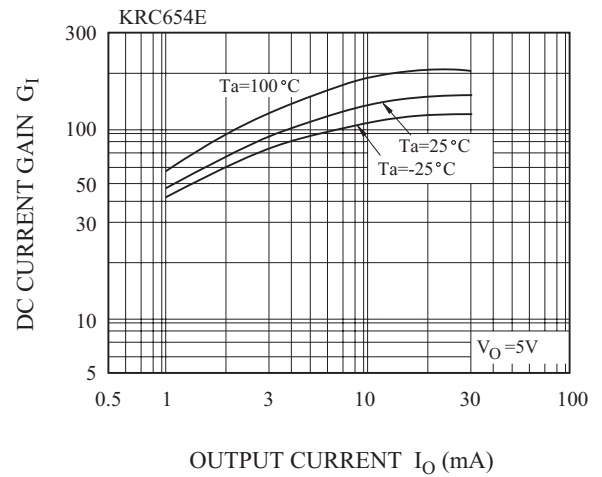
$G_I - I_O$



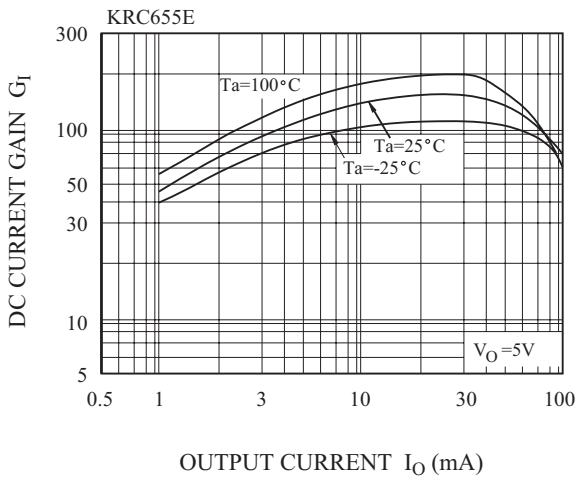
$G_I - I_O$



$G_I - I_O$



$G_I - I_O$



$G_I - I_O$

