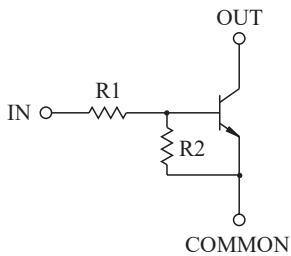


SWITCHING APPLICATION.
INTERFACE CIRCUIT AND DRIVER CIRCUIT APPLICATION

FEATURES

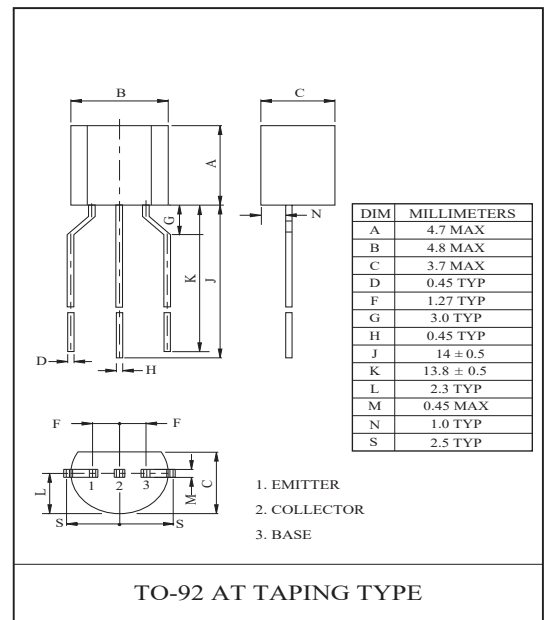
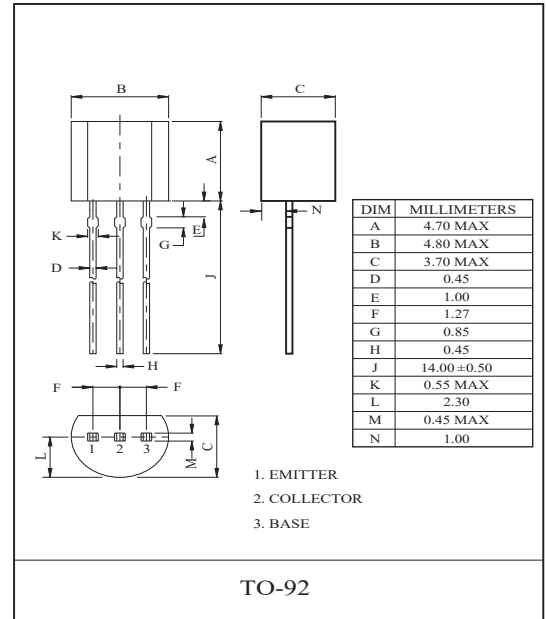
- With Built-in Bias Resistors.
- Simplify Circuit Design.
- Reduce a Quantity of Parts and Manufacturing Process.

EQUIVALENT CIRCUIT



BIAS RESISTOR VALUES

TYPE NO.	R1(k Ω)	R2(k Ω)
KRC116	1	10
KRC117	2.2	2.2
KRC118	2.2	10
KRC119	4.7	10
KRC120	10	4.7
KRC121	47	10
KRC122	100	100



MAXIMUM RATING (Ta=25°C)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Output Voltage	KRC116~122	V _O	50	V
Input Voltage	KRC116	V _I	10, -5	V
	KRC117		12, -10	
	KRC118		12, -5	
	KRC119		20, -7	
	KRC120		30, -10	
	KRC121		40, -15	
Output Current	KRC116~122	I _O	100	mA
Power Dissipation		P _D	625	mW
Junction Temperature		T _j	-55~150	°C
Storage Temperature Range		T _{stg}	-55~150	°C

KRC116~KRC122

ELECTRICAL CHARACTERISTICS (Ta=25°C)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Output Cut-off Current	KRC116 ~ 122	$I_{O(OFF)}$	$V_O=50V, V_I=0$	-	-	500	nA
DC Current Gain	KRC116	G_I	$V_O=5V, I_O=5mA$	33	-	-	
	KRC117		$V_O=5V, I_O=20mA$	20	-	-	
	KRC118		$V_O=5V, I_O=10mA$	33	-	-	
	KRC119		$V_O=5V, I_O=10mA$	30	-	-	
	KRC120		$V_O=5V, I_O=10mA$	24	-	-	
	KRC121		$V_O=5V, I_O=5mA$	33	-	-	
	KRC122		$V_O=5V, I_O=5mA$	62	-	-	
Output Voltage	KRC116	$V_{O(ON)}$	$I_O=10mA, I_I=0.5mA$	-	-	0.3	V
	KRC117		$I_O=10mA, I_I=0.5mA$	-	0.1	0.3	
	KRC118		$I_O=10mA, I_I=0.5mA$	-	-	0.3	
	KRC119		$I_O=10mA, I_I=0.5mA$	-	0.1	0.3	
	KRC120		$I_O=10mA, I_I=0.5mA$	-	0.1	0.3	
	KRC121		$I_O=10mA, I_I=0.5mA$	-	0.1	0.3	
	KRC122		$I_O=5mA, I_I=0.25mA$	-	0.1	0.3	
Input Voltage (ON)	KRC116	$V_{I(ON)}$	$V_O=0.3V, I_O=20mA$	-	0.98	3	V
	KRC117		$V_O=0.3V, I_O=20mA$	-	1.83	3	
	KRC118		$V_O=0.3V, I_O=20mA$	-	1.22	3	
	KRC119		$V_O=0.3V, I_O=20mA$	-	1.76	2.5	
	KRC120		$V_O=0.3V, I_O=2mA$	-	2	3	
	KRC121		$V_O=0.3V, I_O=2mA$	-	3.9	5	
	KRC122		$V_O=0.3V, I_O=1mA$	-	1.64	3	
Input Voltage (OFF)	KRC116	$V_{I(OFF)}$	$V_{CC}=5V, I_O=100 \mu A$	0.3	0.63	-	V
	KRC117			0.5	1.15	-	
	KRC118			0.3	0.67	-	
	KRC119			0.3	0.82	-	
	KRC120			0.8	1.68	-	
	KRC121			1	3.09	-	
	KRC122			0.5	1.17	-	
Transition Frequency	KRC116 ~ 122	f_T^*	$V_O=10V, I_O=5mA$	-	250	-	MHz
Input Current	KRC116	I_I	$V_I=5V$	-	-	7.2	mA
	KRC117			-	-	3.8	
	KRC118			-	-	3.8	
	KRC119			-	-	1.8	
	KRC120			-	-	0.88	
	KRC121			-	-	0.16	
	KRC122			-	-	0.15	
Input Resistor	KRC116	R1	-	0.7	1	1.3	k Ω
	KRC117			1.54	2.2	2.86	
	KRC118			1.54	2.2	2.86	
	KRC119			3.29	4.7	6.11	
	KRC120			7	10	13	
	KRC121			32.9	47	61.1	
	KRC122			70	100	130	
Input Resistor	KRC116	R2	-	7	10	13	k Ω
	KRC117			1.54	2.2	2.86	
	KRC118			7	10	13	
	KRC119			7	10	13	
	KRC120			3.29	4.7	6.11	
	KRC121			7	10	13	
	KRC122			70	100	130	

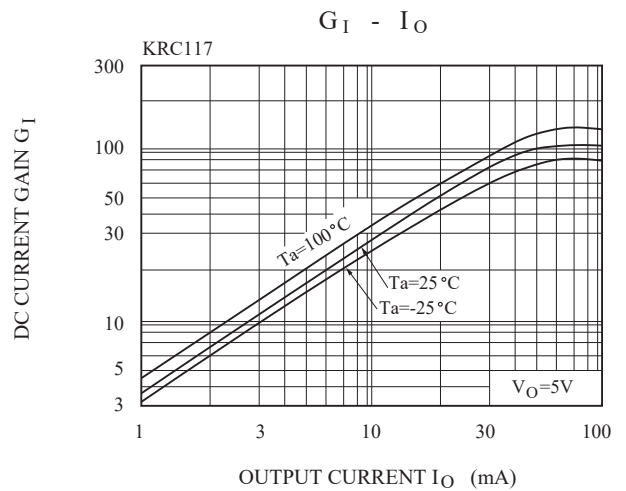
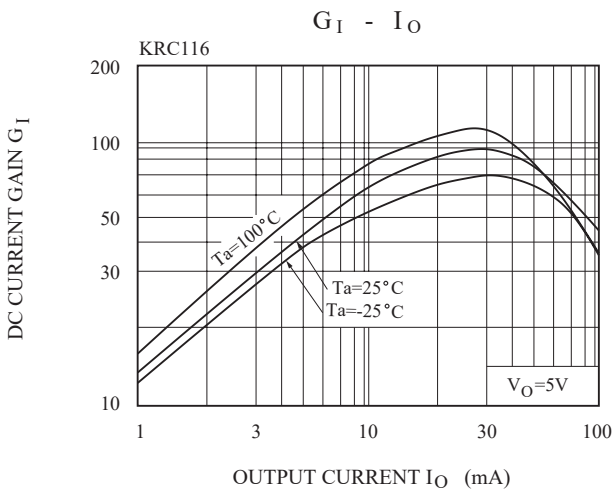
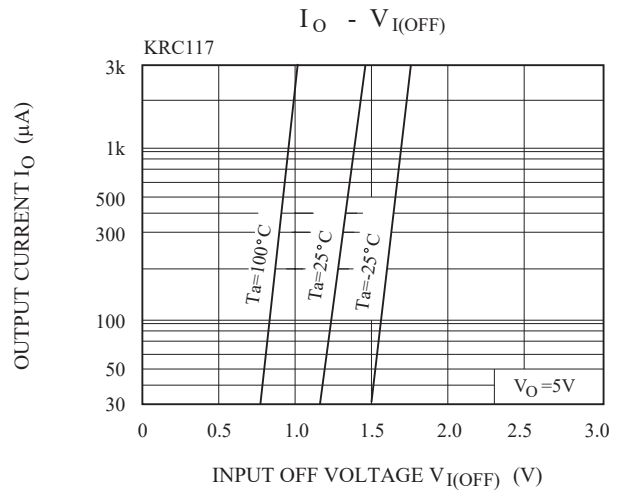
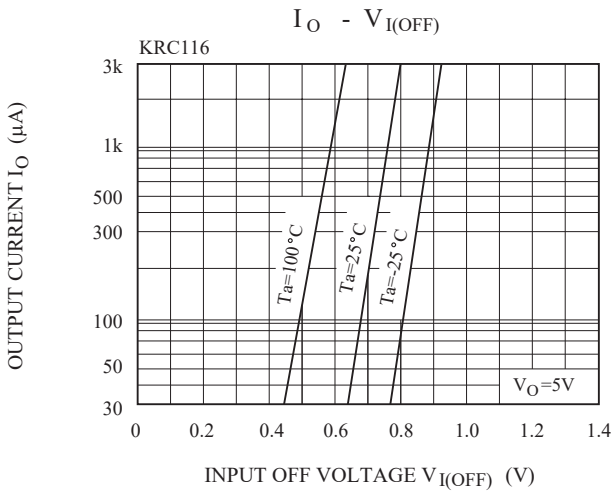
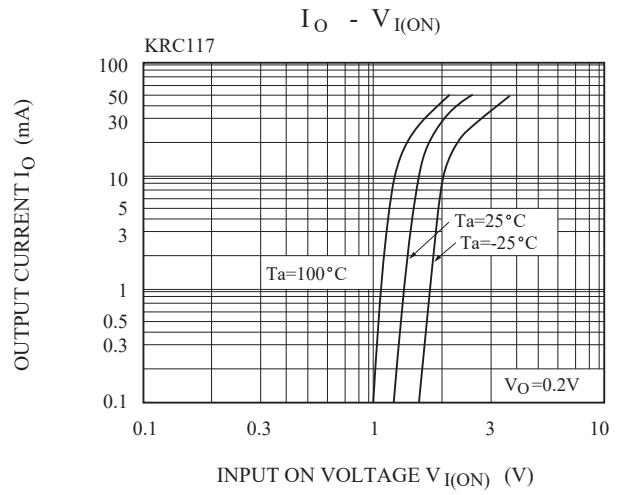
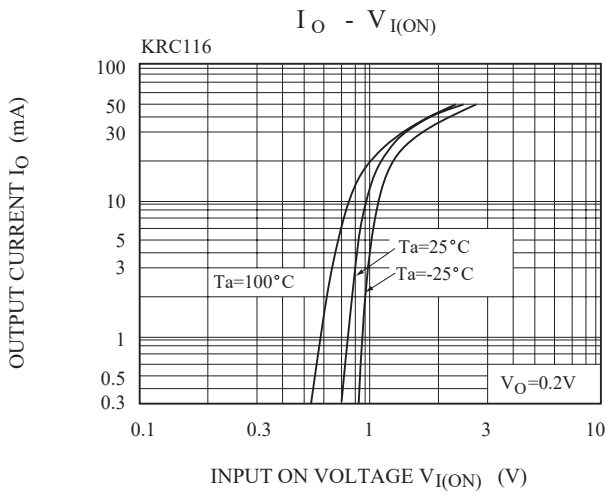
Note : * Characteristic of Transistor Only.

KRC116~KRC122

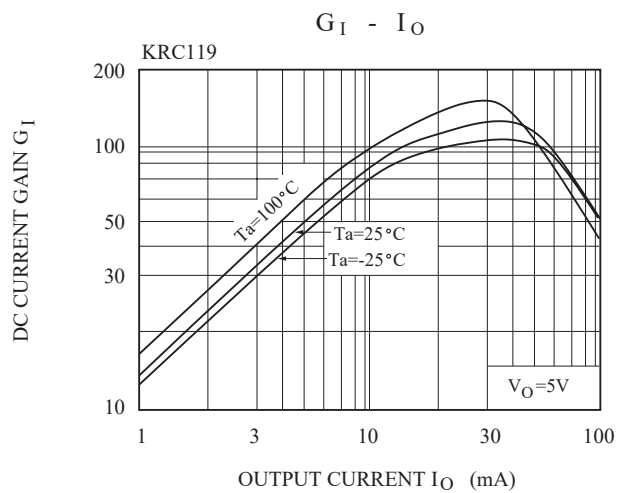
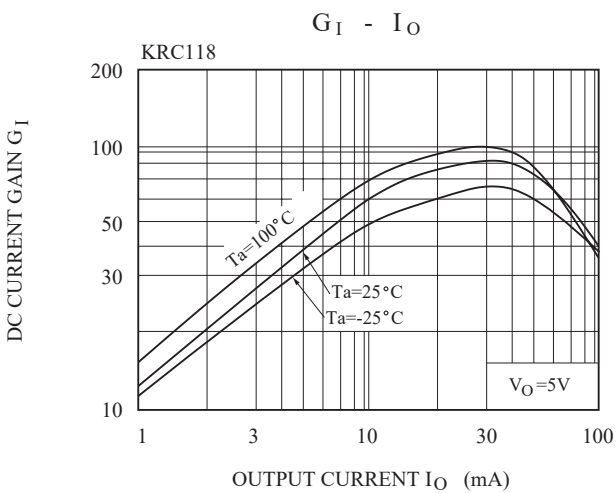
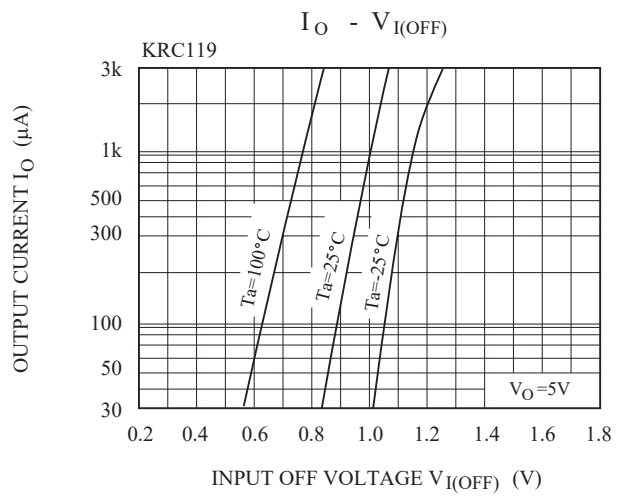
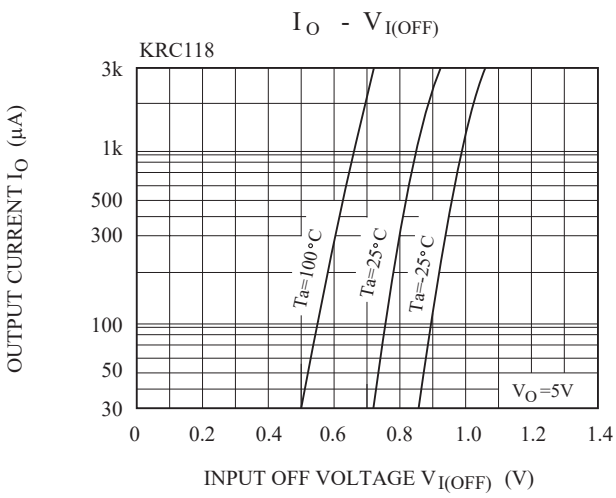
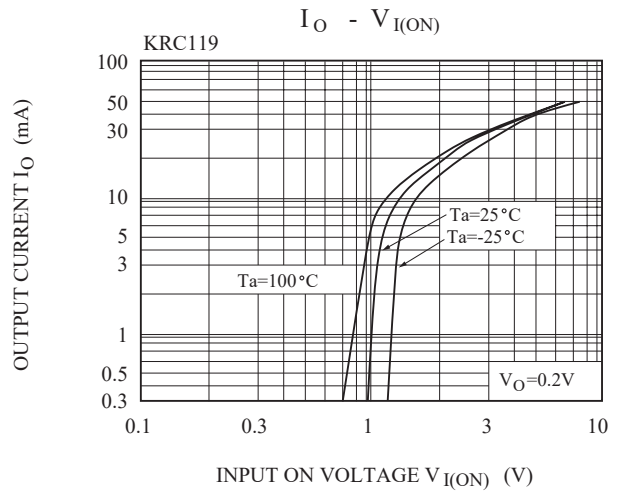
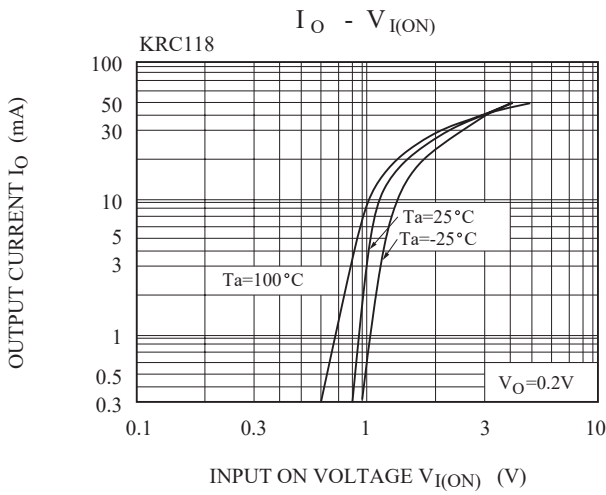
ELECTRICAL CHARACTERISTICS (Ta=25°C)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT	
Switching Time	Rise Time	KRC116	V _O =5V V _{IN} =5V R _L =1kΩ	-	0.01	-	μS	
		KRC117		-	0.03	-		
		KRC118		-	0.02	-		
		KRC119		t _r	-	0.05		-
		KRC120		-	0.12	-		
		KRC121		-	0.30	-		
		KRC122		-	0.35	-		
	Storage Time	KRC116		t _{stg}	-	3		-
		KRC117		-	2	-		
		KRC118		-	3	-		
		KRC119		-	3	-		
		KRC120		-	2	-		
		KRC121		-	2	-		
		KRC122		-	2	-		
	Fall Time	KRC116		t _f	-	0.1		-
		KRC117		-	0.19	-		
		KRC118		-	0.1	-		
		KRC119		-	0.36	-		
		KRC120		-	0.35	-		
		KRC121		-	0.5	-		
		KRC122		-	0.7	-		

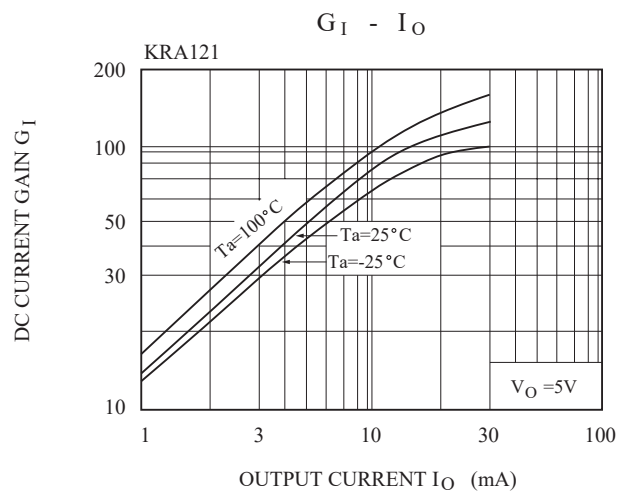
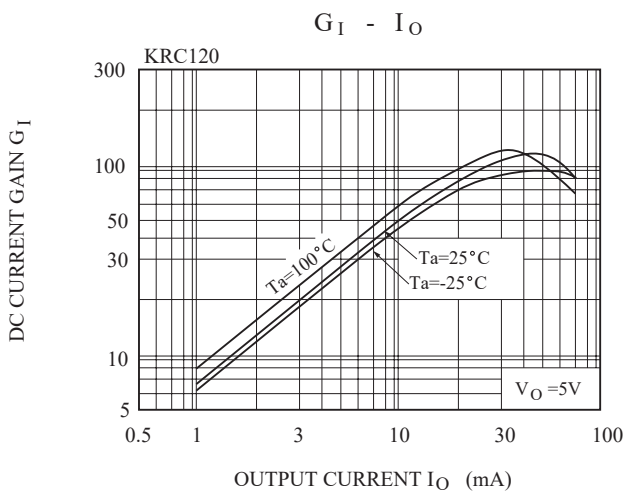
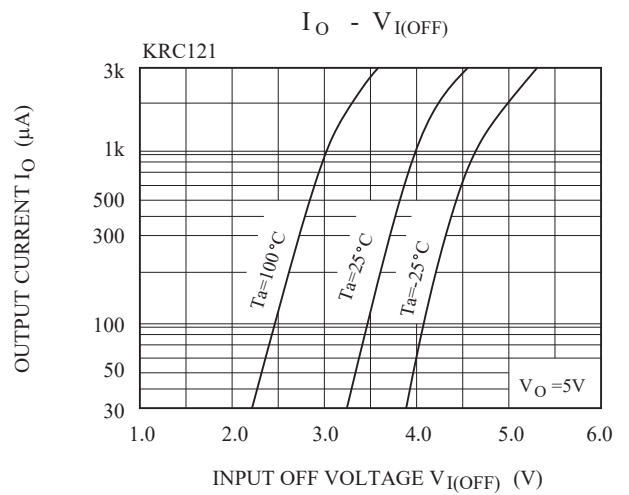
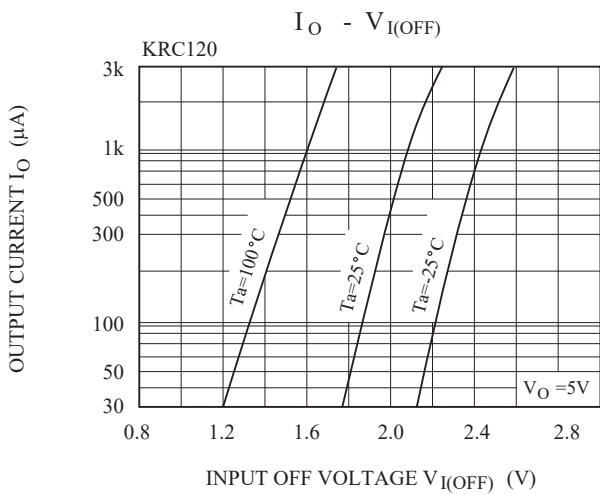
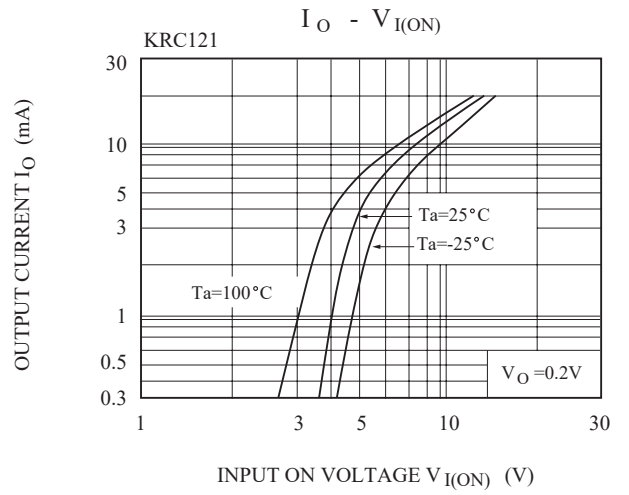
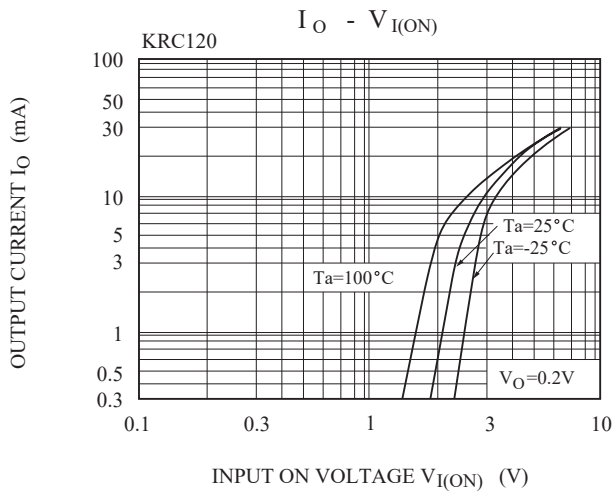
KRC116~KRC122



KRC116~KRC122



KRC116~KRC122



KRC116~KRC122

