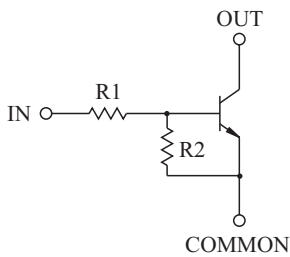


SWITCHING APPLICATION. INTERFACE CIRCUIT AND DRIVER CIRCUIT APPLICATION

FEATURES

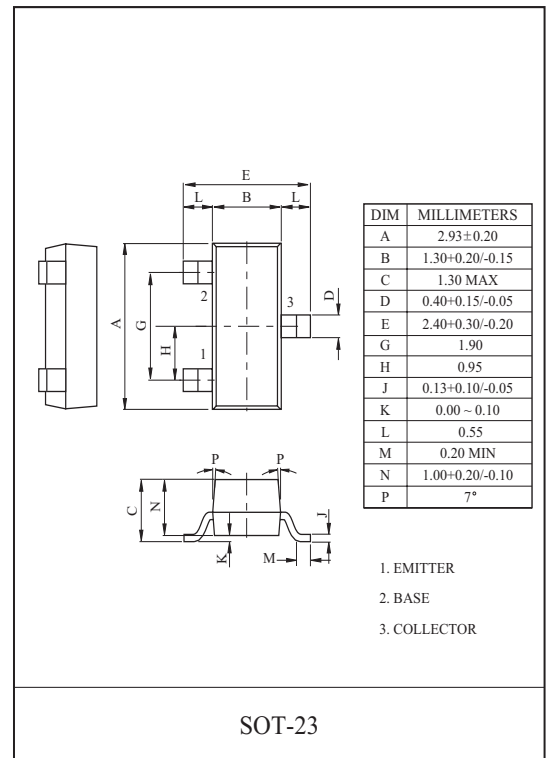
- With Built-in Bias Resistors.
- Simplify Circuit Design.
- Reduce a Quantity of Parts and Manufacturing Process.
- Suffix U : Qualified to AEC-Q101
ex) KRC116S-RTK/HU

EQUIVALENT CIRCUIT



BIAS RESISTOR VALUES

TYPE NO.	R1(k)	R2(k)
KRC116S	1	10
KRC117S	2.2	2.2
KRC118S	2.2	10
KRC119S	4.7	10
KRC120S	10	4.7
KRC121S	47	10
KRC122S	100	100



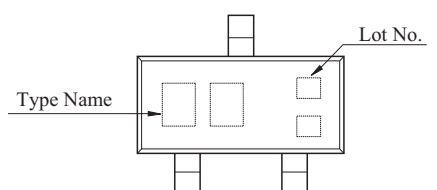
MAXIMUM RATING (Ta=25)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Output Voltage	KRC116S 122S	V_O	50	V
Input Voltage	KRC116S	V_I	10, -5	V
	KRC117S		12, -10	
	KRC118S		12, -5	
	KRC119S		20, -7	
	KRC120S		30, -10	
	KRC121S		40, -15	
KRC122S	40, -10			
Output Current	KRC116S 122S	I_O	100	mA
Power Dissipation		P_D	200	mW
Junction Temperature		T_j	-55~150	
Storage Temperature Range		T_{stg}	-55 150	

MARK SPEC

TYPE	KRC116S	KRC117S	KRC118S	KRC119S	KRC120S	KRC121S	KRC122S
MARK	N2	N4	N5	N6	N7	N8	N9

Marking



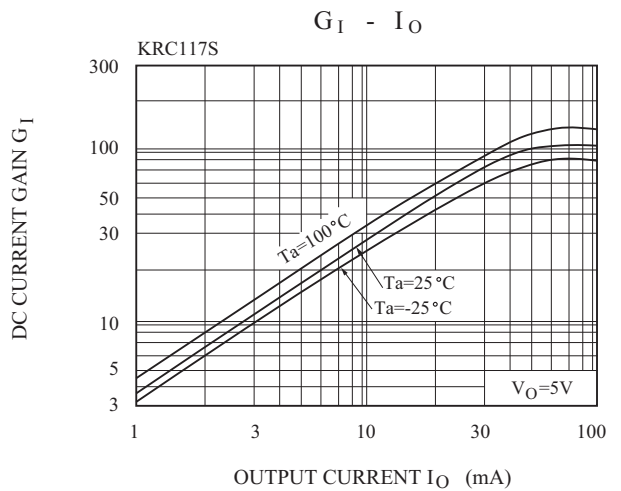
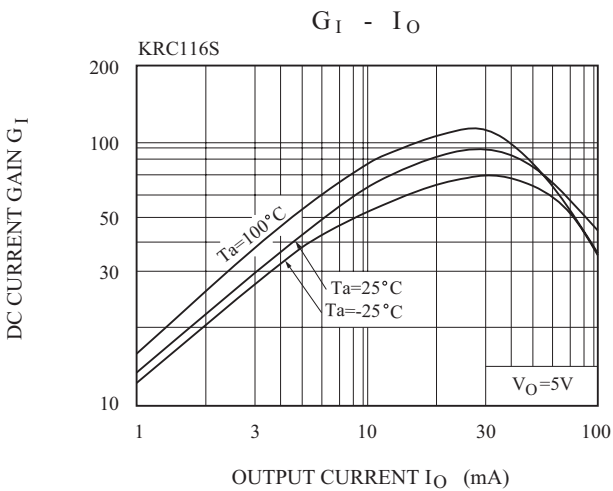
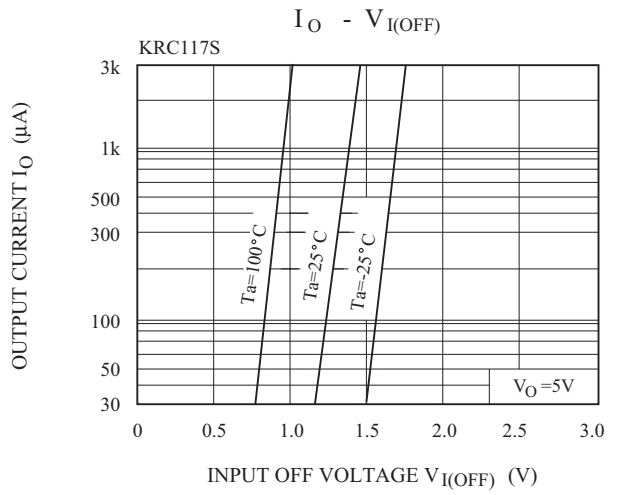
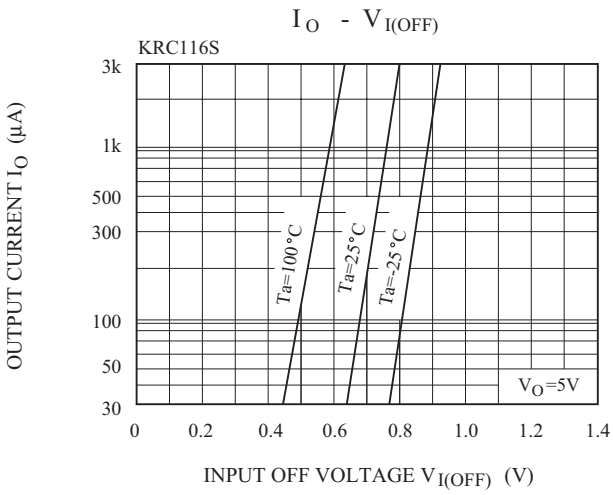
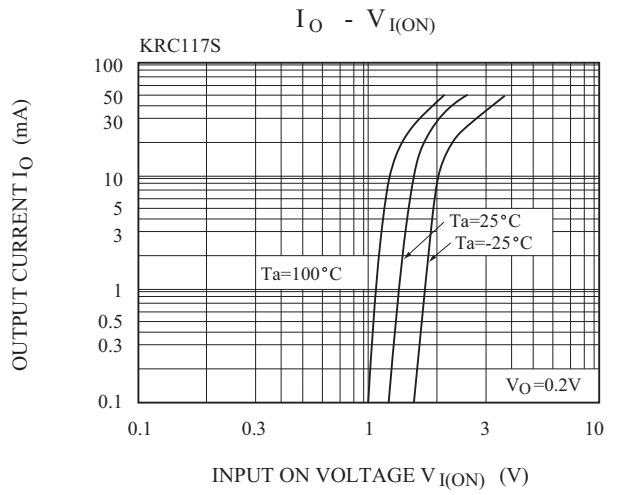
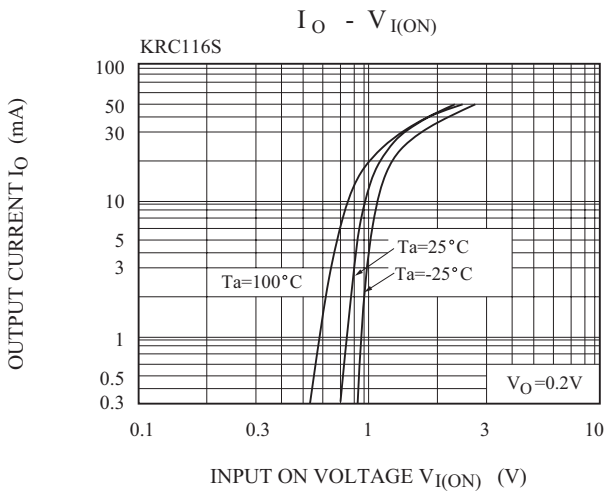
KRC116S~KRC122S

ELECTRICAL CHARACTERISTICS (Ta=25)

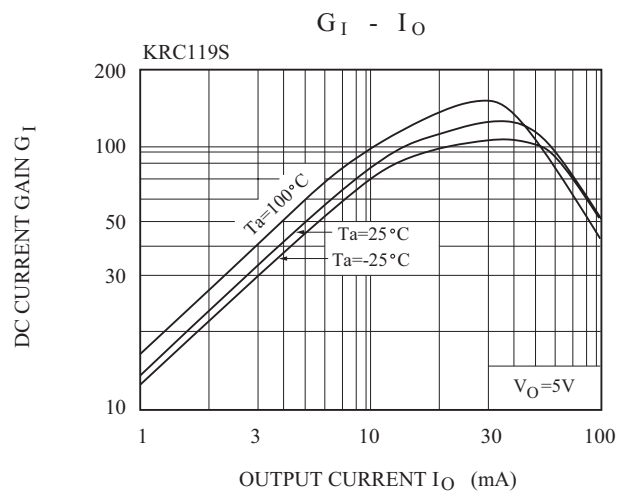
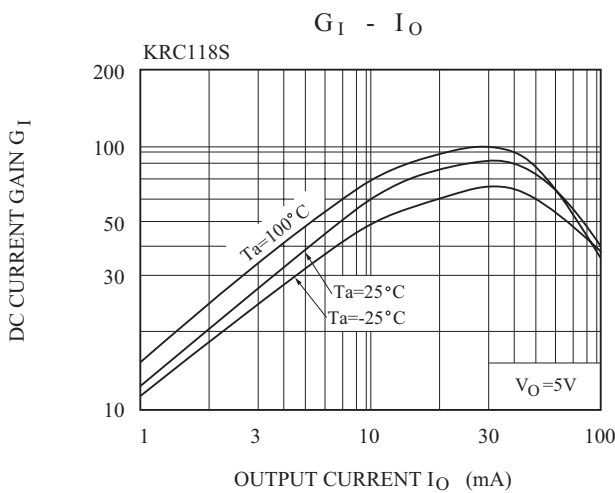
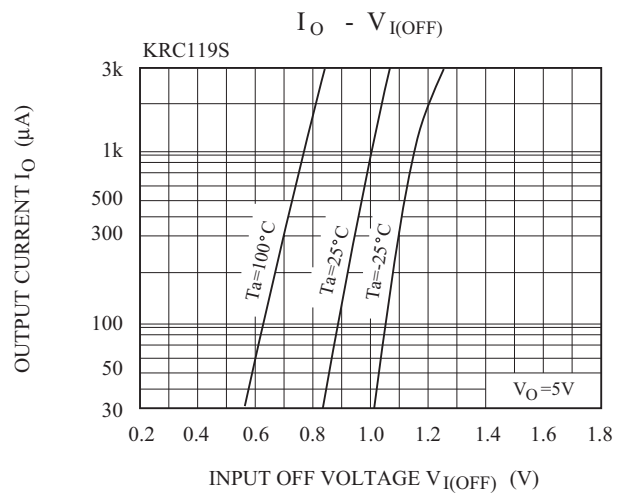
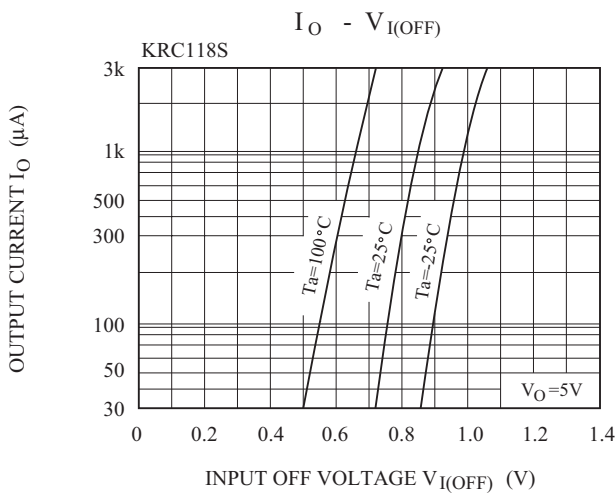
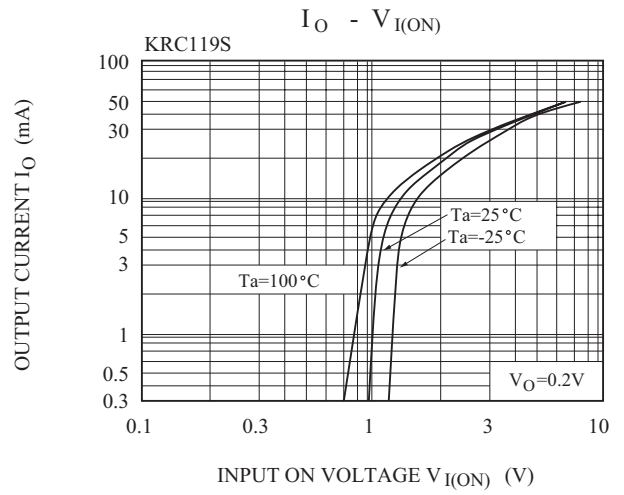
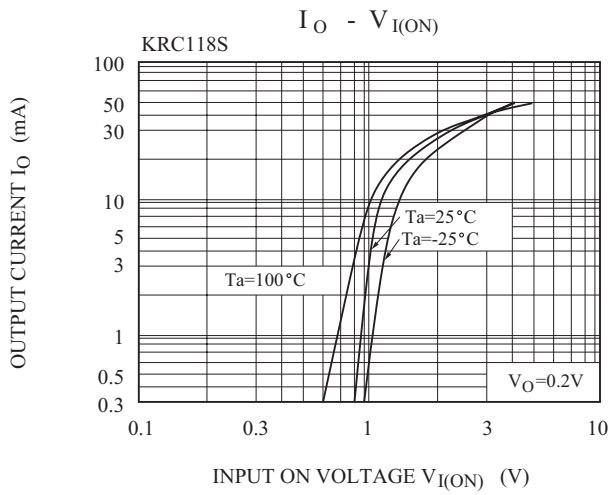
CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Output Cut-off Current	KRC116S 122S	$I_{O(OFF)}$	$V_O=50V, V_I=0$	-	-	500	nA
DC Current Gain	KRC116S	G_I	$V_O=5V, I_O=5mA$	33	-	-	
	KRC117S		$V_O=5V, I_O=20mA$	20	-	-	
	KRC118S		$V_O=5V, I_O=10mA$	33	-	-	
	KRC119S		$V_O=5V, I_O=10mA$	30	-	-	
	KRC120S		$V_O=5V, I_O=10mA$	24	-	-	
	KRC121S		$V_O=5V, I_O=5mA$	33	-	-	
	KRC122S		$V_O=5V, I_O=5mA$	62	-	-	
Output Voltage	KRC116S	$V_{O(ON)}$	$I_O=10mA, I_I=0.5mA$	-	-	0.3	V
	KRC117S		$I_O=10mA, I_I=0.5mA$	-	0.1	0.3	
	KRC118S		$I_O=10mA, I_I=0.5mA$	-	-	0.3	
	KRC119S		$I_O=10mA, I_I=0.5mA$	-	0.1	0.3	
	KRC120S		$I_O=10mA, I_I=0.5mA$	-	0.1	0.3	
	KRC121S		$I_O=10mA, I_I=0.5mA$	-	0.1	0.3	
	KRC122S		$I_O=5mA, I_I=0.25mA$	-	0.1	0.3	
Input Voltage (ON)	KRC116S	$V_{I(ON)}$	$V_O=0.3V, I_O=20mA$	-	0.98	3	V
	KRC117S		$V_O=0.3V, I_O=20mA$	-	1.83	3	
	KRC118S		$V_O=0.3V, I_O=20mA$	-	1.22	3	
	KRC119S		$V_O=0.3V, I_O=20mA$	-	1.76	2.5	
	KRC120S		$V_O=0.3V, I_O=2mA$	-	2	3	
	KRC121S		$V_O=0.3V, I_O=2mA$	-	3.9	5	
	KRC122S		$V_O=0.3V, I_O=1mA$	-	1.64	3	
Input Voltage (OFF)	KRC116S	$V_{I(OFF)}$	$V_{CC}=5V, I_O=100\mu A$	0.3	0.63	-	V
	KRC117S			0.5	1.15	-	
	KRC118S			0.3	0.67	-	
	KRC119S			0.3	0.82	-	
	KRC120S			0.8	1.68	-	
	KRC121S			1	3.09	-	
	KRC122S			0.5	1.17	-	
Transition Frequency	KRC116S 122S	f_T^*	$V_O=10V, I_O=5mA$	-	250	-	MHz
Input Current	KRC116S	I_I	$V_I=5V$	-	-	7.2	mA
	KRC117S			-	-	3.8	
	KRC118S			-	-	3.8	
	KRC119S			-	-	1.8	
	KRC120S			-	-	0.88	
	KRC121S			-	-	0.16	
	KRC122S			-	-	0.15	
Input Resistor	KRC116S	R1	-	0.7	1	1.3	k
	KRC117S			1.54	2.2	2.86	
	KRC118S			1.54	2.2	2.86	
	KRC119S			3.29	4.7	6.11	
	KRC120S			7	10	13	
	KRC121S			32.9	47	61.1	
	KRC122S			70	100	130	
Resistor Ratio	KRC116S	R2/R1	-	8	10	12	
	KRC117S			0.8	1.0	1.2	
	KRC118S			3.6	4.5	5.5	
	KRC119S			1.7	2.1	2.6	
	KRC120S			0.37	0.47	0.57	
	KRC121S			0.17	0.21	0.26	
	KRC122S			0.8	1.0	1.2	

Note : * Characteristic of Transistor Only.

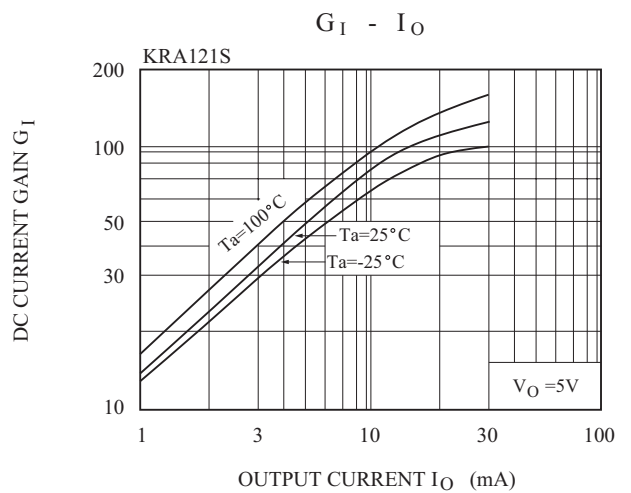
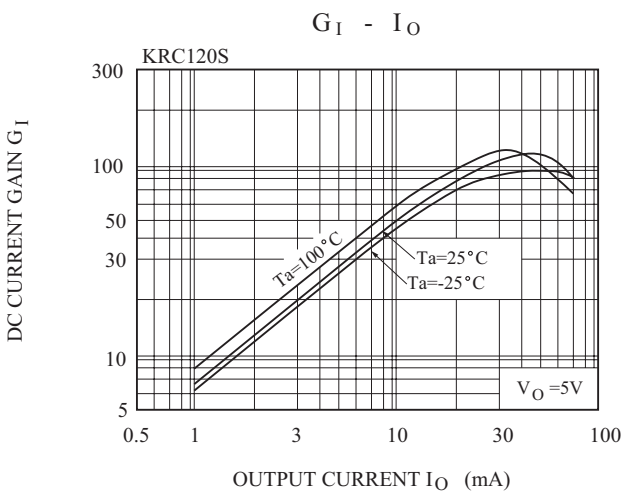
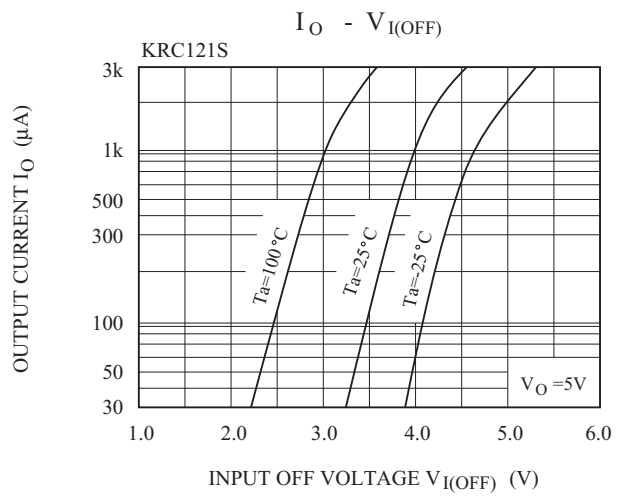
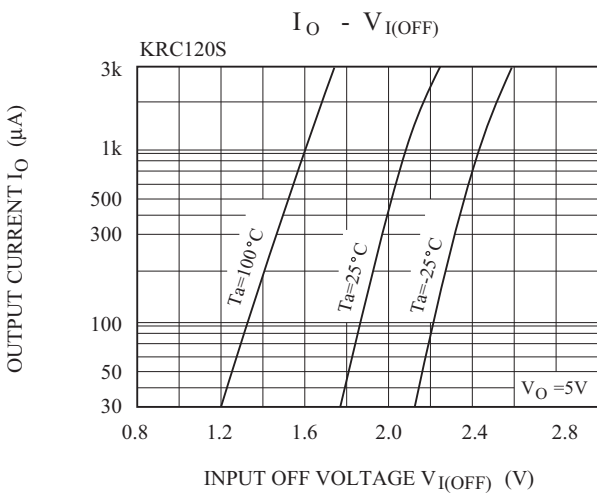
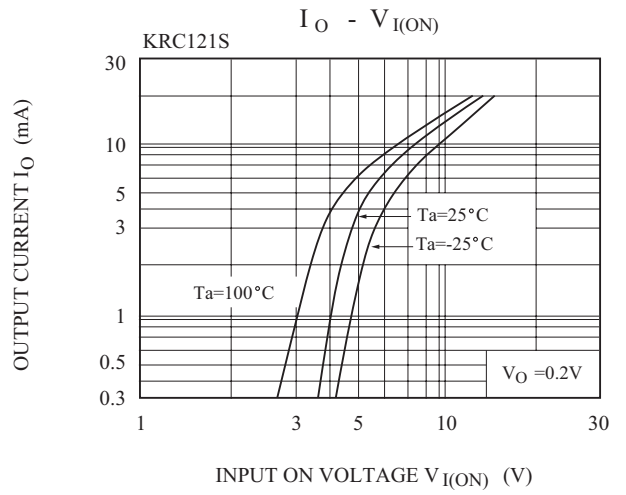
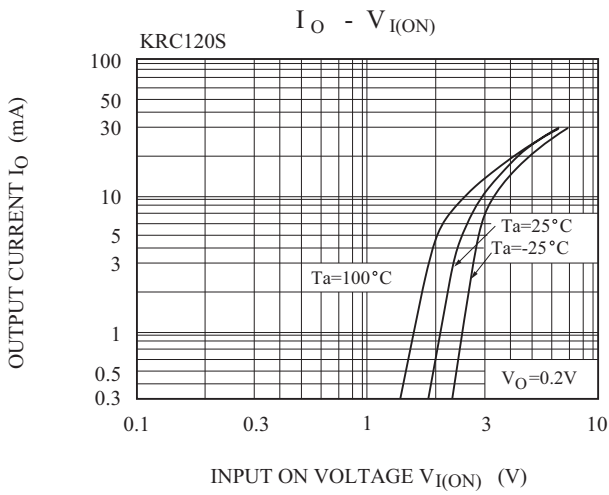
KRC116S~KRC122S



KRC116S~KRC122S



KRC116S~KRC122S



KRC116S~KRC122S

