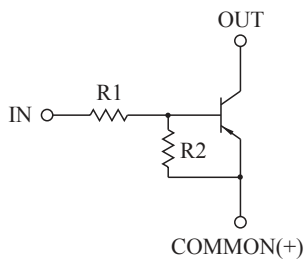


SWITCHING APPLICATION. INTERFACE CIRCUIT AND DRIVER CIRCUIT APPLICATION

FEATURES

- With Built-in Bias Resistors.
- Simplify Circuit Design.
- Reduce a Quantity of Parts and Manufacturing Process.
- Suffix **U** : Qualified to AEC-Q101.
ex) KRA316-RTK/**U**
- Suffix **A** : USM(1) Package.
ex) KRA316-RTK/**PA**

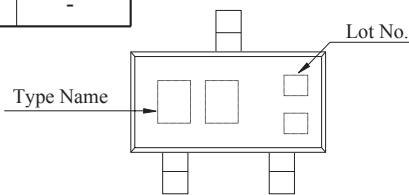
EQUIVALENT CIRCUIT



TYPE NO.	R1(kΩ)	R2(kΩ)
KRA316	1	10
KRA317	2.2	2.2
KRA318	2.2	10
KRA319	4.7	10
KRA320	10	4.7
KRA321	47	10
KRA322	100	100

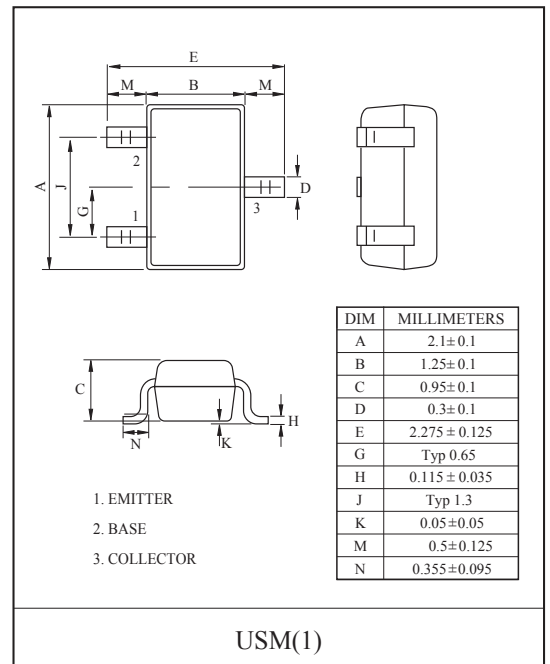
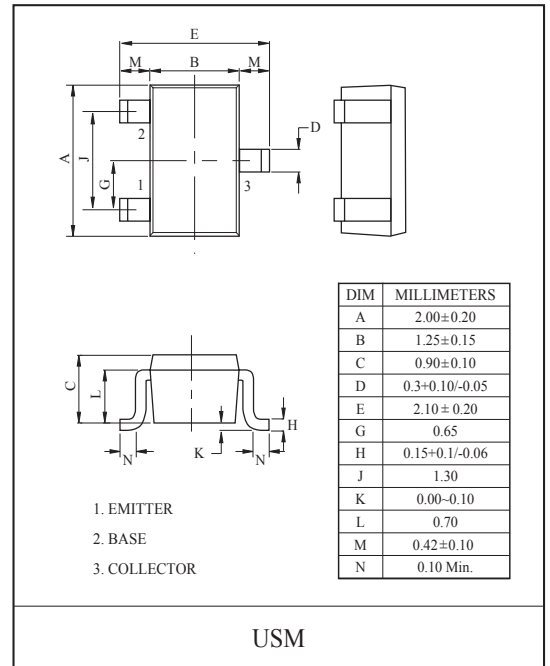
MARK SPEC

TYPE	KRA316	KRA317	KRA318	KRA319
MARK	P2	P4	P5	P6
TYPE	KRA320	KRA321	KRA322	-
MARK	P7	P8	P9	-



MAXIMUM RATING (Ta=25°C)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Output Voltage	KRA316~322	V_O	-50	V
Input Voltage	KRA316	V_I	-10, 5	V
	KRA317		-12, 10	
	KRA318		-12, 5	
	KRA319		-20, 7	
	KRA320		-30, 10	
	KRA321		-40, 15	
	KRA322		-40, 10	
Output Current	KRA316~322	I_O	-100	mA
Power Dissipation		P_D	100	mW
Junction Temperature		T_j	-55~150	°C
Storage Temperature Range		T_{stg}	-55~150	°C



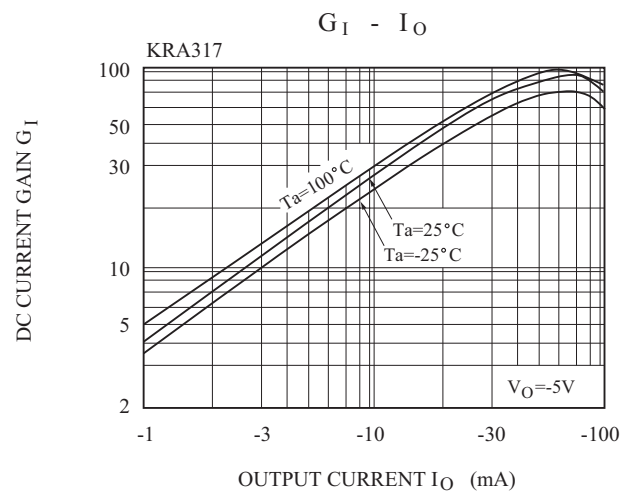
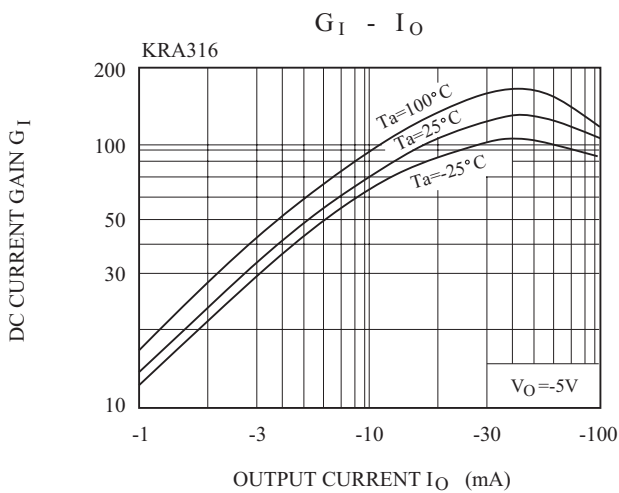
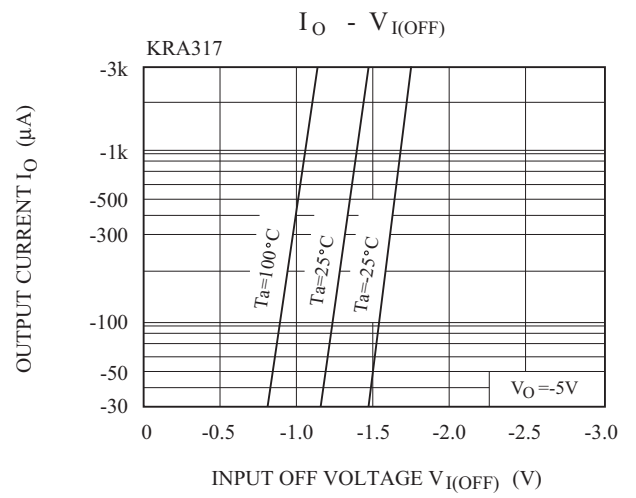
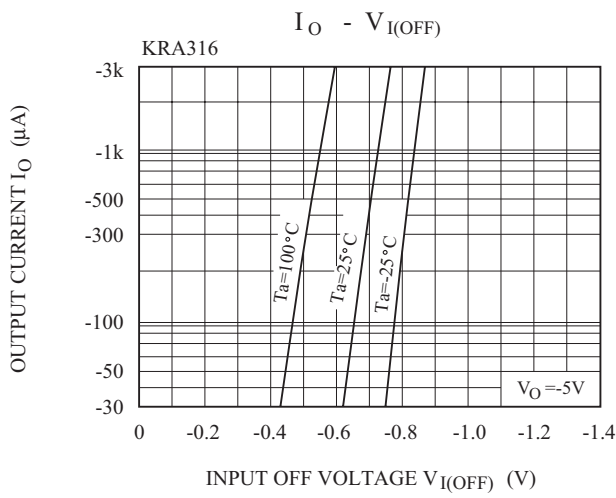
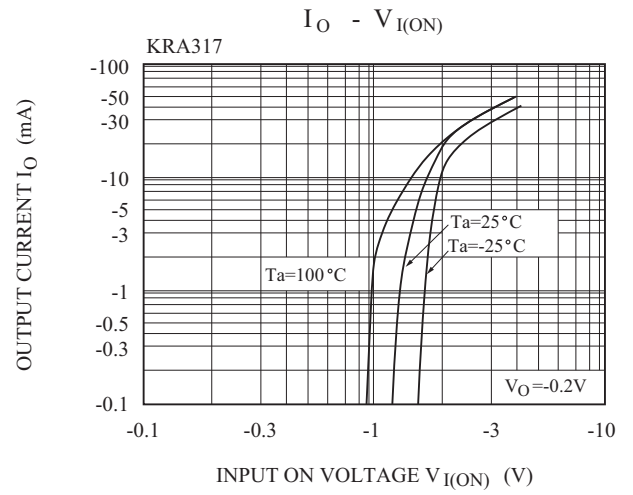
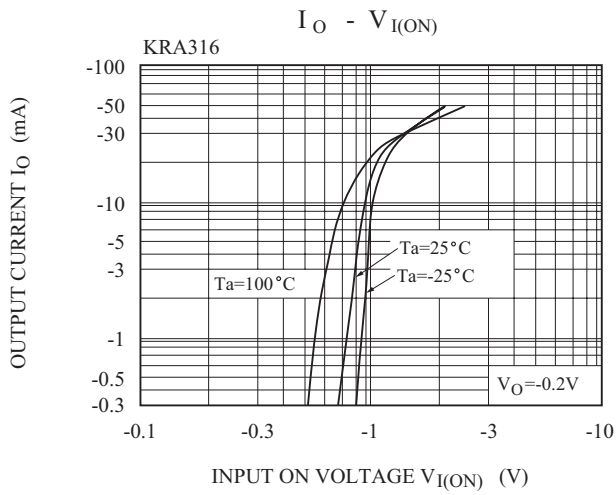
KRA316~KRA322

ELECTRICAL CHARACTERISTICS (Ta=25°C)

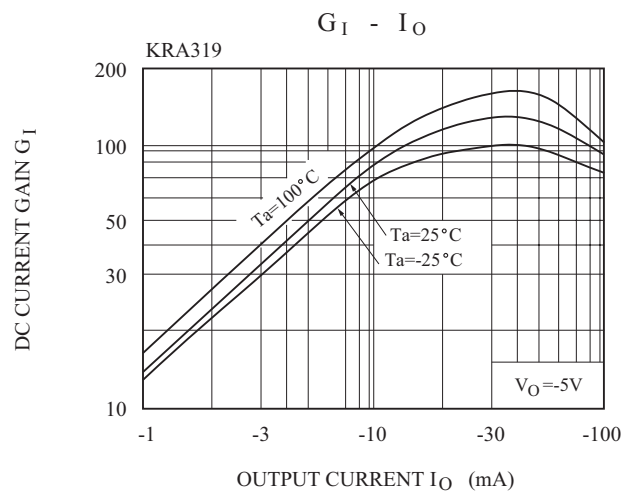
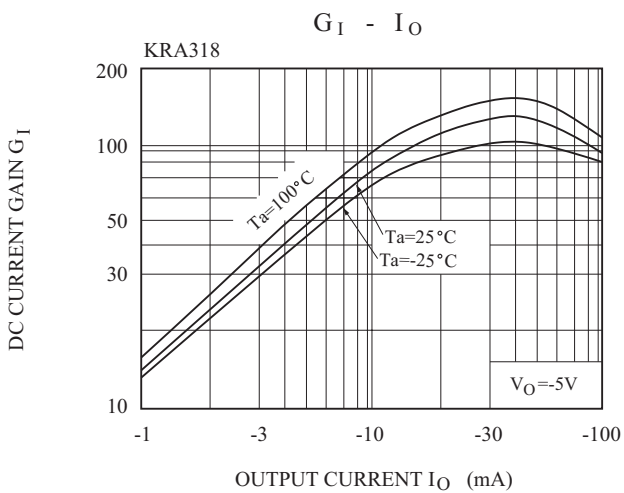
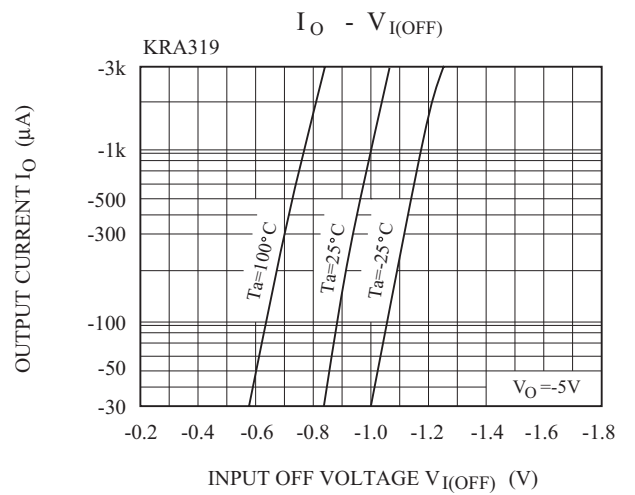
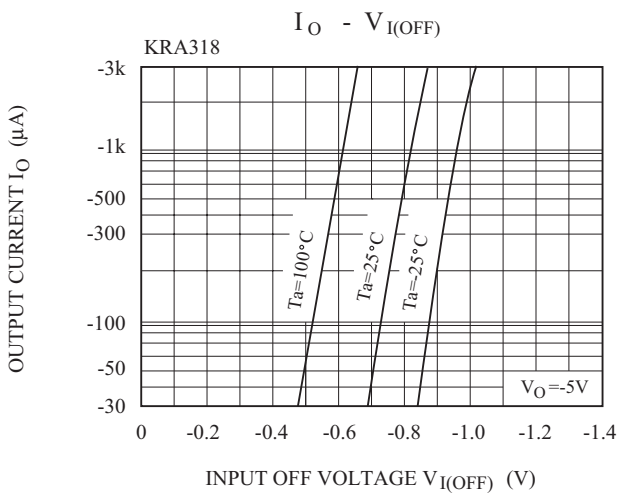
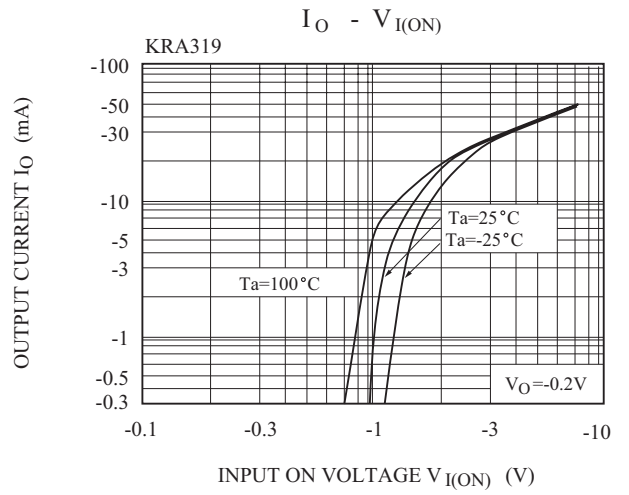
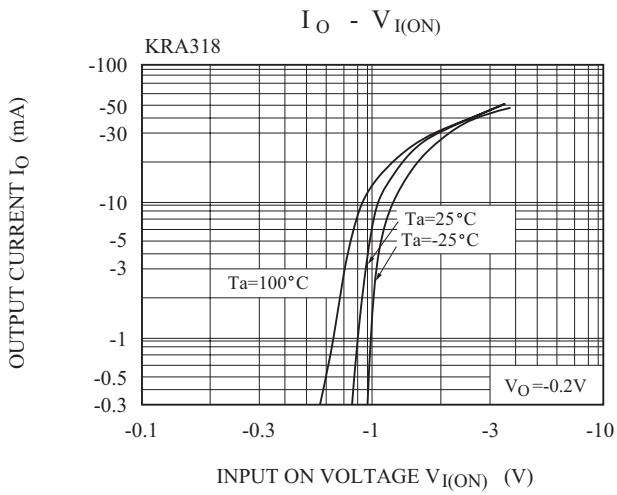
CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Output Cut-off Current	KRA316 ~ 322	$I_{O(OFF)}$	$V_O = -50V, V_I = 0$	-	-	-500	nA
DC Current Gain	KRA316	G_I	$V_O = -5V, I_O = -5mA$	33	-	-	
	KRA317		$V_O = -5V, I_O = -20mA$	20	-	-	
	KRA318		$V_O = -5V, I_O = -10mA$	33	-	-	
	KRA319		$V_O = -5V, I_O = -10mA$	30	-	-	
	KRA320		$V_O = -5V, I_O = -10mA$	24	-	-	
	KRA321		$V_O = -5V, I_O = -5mA$	33	-	-	
	KRA322		$V_O = -5V, I_O = -5mA$	62	-	-	
Output Voltage	KRA316	$V_{O(ON)}$	$I_O = -10mA, I_I = -0.5mA$	-	-	-0.3	V
	KRA317		$I_O = -10mA, I_I = -0.5mA$	-	-0.1	-0.3	
	KRA318		$I_O = -10mA, I_I = -0.5mA$	-	-	-0.3	
	KRA319		$I_O = -10mA, I_I = -0.5mA$	-	-0.1	-0.3	
	KRA320		$I_O = -10mA, I_I = -0.5mA$	-	-0.1	-0.3	
	KRA321		$I_O = -10mA, I_I = -0.5mA$	-	-0.1	-0.3	
	KRA322		$I_O = -5mA, I_I = -0.25mA$	-	-0.1	-0.3	
Input Voltage (ON)	KRA316	$V_{I(ON)}$	$V_O = -0.3V, I_O = -20mA$	-	-0.98	-3	V
	KRA317		$V_O = -0.3V, I_O = -20mA$	-	-1.83	-3	
	KRA318		$V_O = -0.3V, I_O = -20mA$	-	-1.22	-3	
	KRA319		$V_O = -0.3V, I_O = -20mA$	-	-1.76	-2.5	
	KRA320		$V_O = -0.3V, I_O = -2mA$	-	-2	-3	
	KRA321		$V_O = -0.3V, I_O = -2mA$	-	-3.9	-5	
	KRA322		$V_O = -0.3V, I_O = -1mA$	-	-1.64	-3	
Input Voltage (OFF)	KRA316	$V_{I(OFF)}$	$V_{CC} = -5V, I_O = -100 \mu A$	-0.3	-0.63	-	V
	KRA317			-0.5	-1.15	-	
	KRA318			-0.3	-0.67	-	
	KRA319			-0.3	-0.82	-	
	KRA320			-0.8	-1.68	-	
	KRA321			-1	-3.09	-	
	KRA322			-0.5	-1.17	-	
Transition Frequency	KRA316 ~ 322	f_T^*	$V_O = -10V, I_O = -5mA$	-	250	-	MHz
Input Current	KRA316	I_I	$V_I = -5V$	-	-	-7.2	mA
	KRA317			-	-	-3.8	
	KRA318			-	-	-3.8	
	KRA319			-	-	-1.8	
	KRA320			-	-	-0.88	
	KRA321			-	-	-0.16	
	KRA322			-	-	-0.15	
Input Resistor	KRA316	R1	-	0.7	1	1.3	kΩ
	KRA317			1.54	2.2	2.86	
	KRA318			1.54	2.2	2.86	
	KRA319			3.29	4.7	6.11	
	KRA320			7	10	13	
	KRA321			32.9	47	61.1	
	KRA322			70	100	130	
Resistor Ratio	KRA316	R2/R1	-	8	10	12	
	KRA317			0.8	1.0	1.2	
	KRA318			3.6	4.5	5.5	
	KRA319			1.7	2.1	2.6	
	KRA320			0.37	0.47	0.57	
	KRA321			0.17	0.21	0.26	
	KRA322			0.8	1.0	1.2	

Note : * Characteristic of Transistor Only.

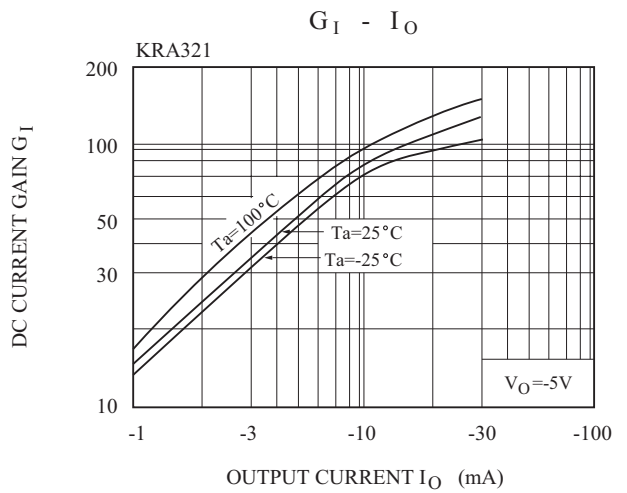
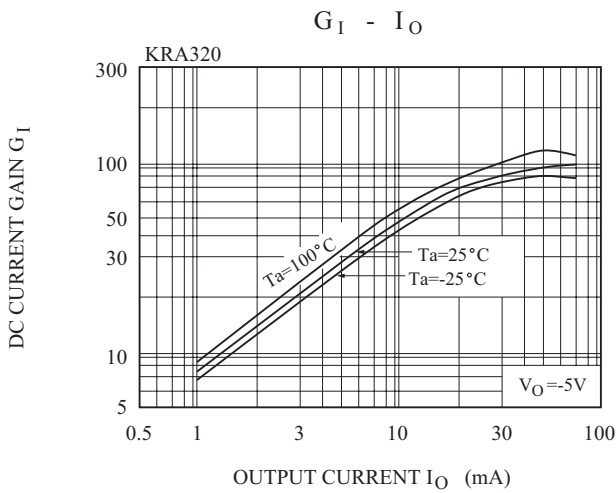
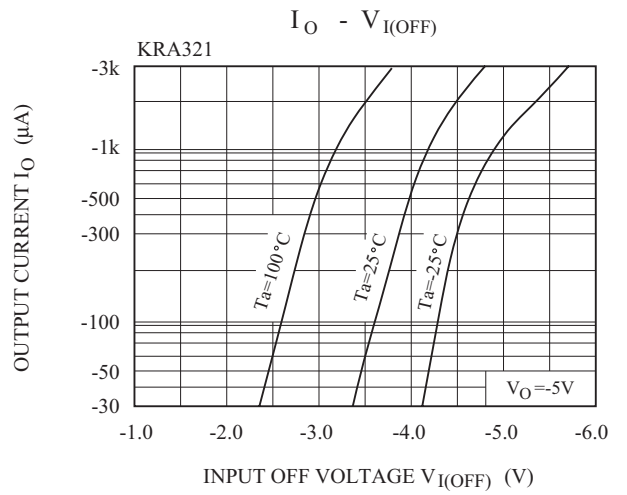
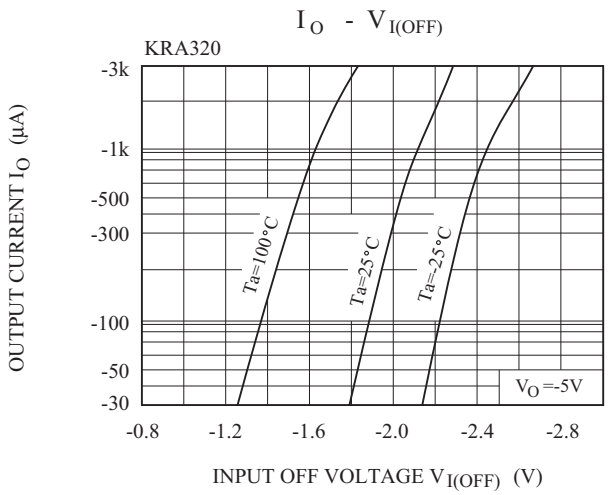
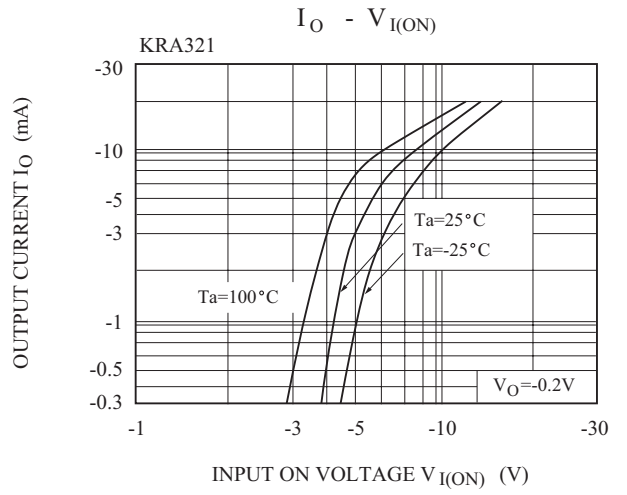
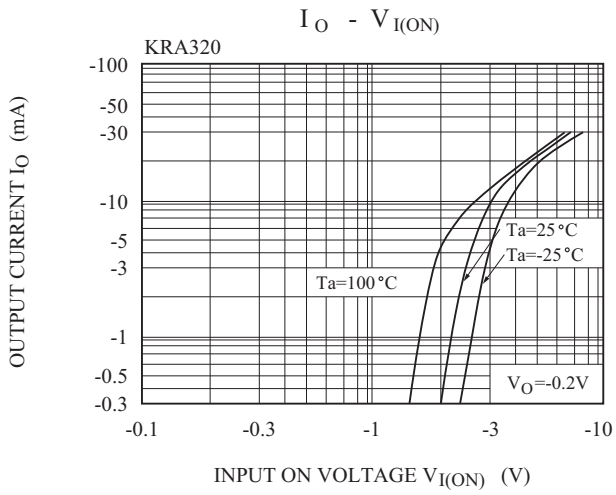
KRA316~KRA322



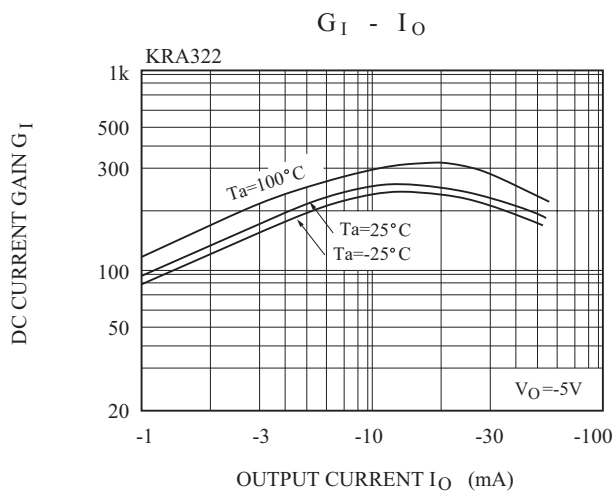
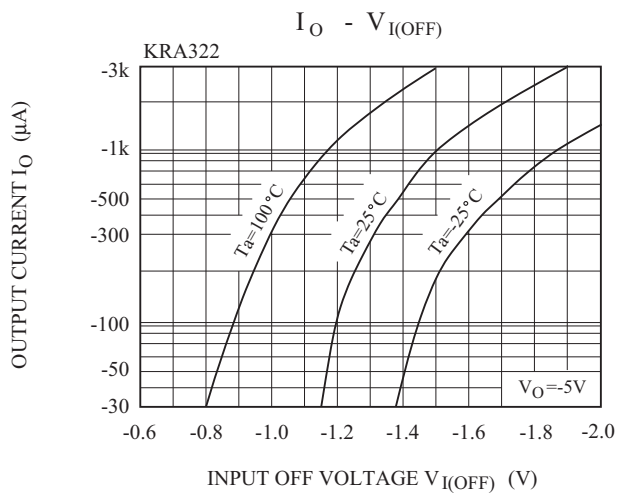
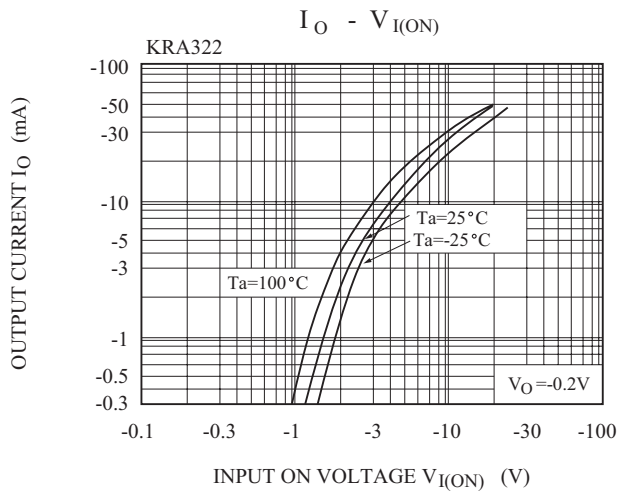
KRA316~KRA322



KRA316~KRA322



KRA316~KRA322



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