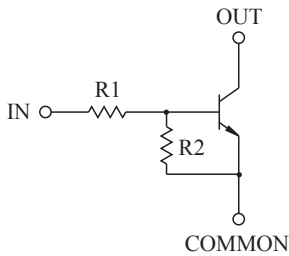


**SWITCHING APPLICATION.  
INTERFACE CIRCUIT AND DRIVER CIRCUIT APPLICATION.**

### FEATURES

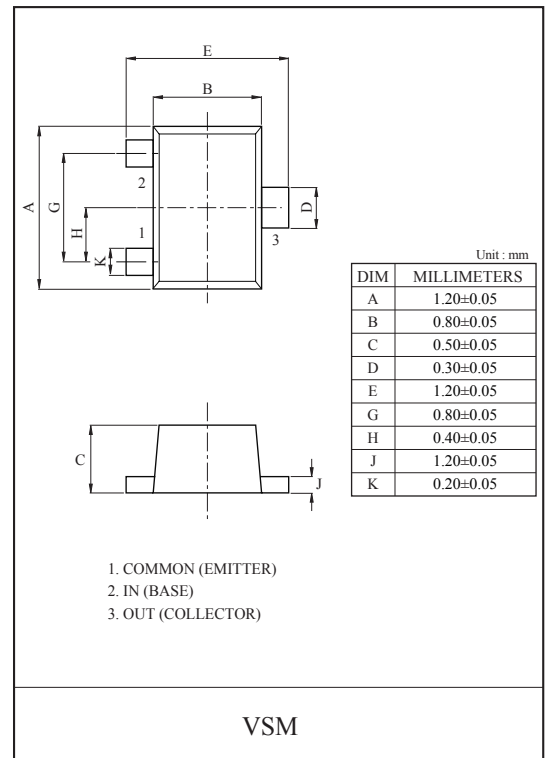
- With Built-in Bias Resistors.
- Simplify Circuit Design.
- Reduce a Quantity of Parts and Manufacturing Process.
- High Packing Density.
- Suffix U : Qualified to AEC-Q101.  
ex) KRC406V-RTK/HU

### EQUIVALENT CIRCUIT



### BIAS RESISTOR VALUES

TYPE NO.	R1(kΩ)	R2(kΩ)
KRC401V	4.7	4.7
KRC402V	10	10
KRC403V	22	22
KRC404V	47	47
KRC405V	2.2	47
KRC406V	4.7	47



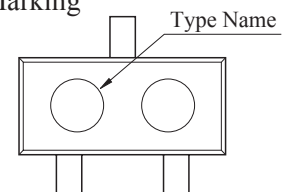
### MAXIMUM RATING (Ta=25°C)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Output Voltage	KRC401V ~ 406V	$V_O$	50	V
Input Voltage	KRC401V	$V_I$	20, -10	V
	KRC402V		30, -10	
	KRC403V		40, -10	
	KRC404V		40, -10	
	KRC405V		12, -5	
	KRC406V		20, -5	
Output Current	KRC401V ~ 406V	$I_O$	100	mA
Power Dissipation		$P_D$	100	mW
Junction Temperature		$T_j$	-55 ~ 150	°C
Storage Temperature Range		$T_{stg}$	-55 ~ 150	°C

### MARK SPEC

TYPE	KRC401V	KRC402V	KRC403V	KRC404V	KRC405V	KRC406V
MARK	NA	NB	NC	ND	NE	NF

### Marking



# KRC401V~KRC406V

## ELECTRICAL CHARACTERISTICS (Ta=25°C)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Output Cut-off Current	KRC401V ~ 406V	$I_{O(OFF)}$	$V_O=50V, V_I=0$	-	-	500	nA
DC Current Gain	KRC401V	$G_I$	$V_O=5V, I_O=10mA$	30	55	-	
	KRC402V			50	80	-	
	KRC403V			70	120	-	
	KRC404V			80	200	-	
	KRC405V			80	200	-	
	KRC406V			80	200	-	
Output Voltage	KRC401V ~ 406V	$V_{O(ON)}$	$I_O=10mA, I_I=0.5mA$	-	0.1	0.3	V
Input Voltage (ON)	KRC401V	$V_{I(ON)}$	$V_O=0.2V, I_O=5mA$	-	1.5	2.0	V
	KRC402V			-	1.8	2.4	
	KRC403V			-	2.1	3.0	
	KRC404V			-	2.8	5.0	
	KRC405V			-	0.8	1.1	
	KRC406V			-	0.9	1.3	
Input Voltage (OFF)	KRC401V ~ 404V	$V_{I(OFF)}$	$V_O=5V, I_O=0.1mA$	1.0	1.2	-	V
	KRC405V ~ 406V			0.5	0.65	-	
Transition Frequency	KRC401V ~ 406V	$f_T^*$	$V_O=10V, I_O=5mA$	-	200	-	MHz
Input Current	KRC401V	$I_I$	$V_I=5V$	-	-	1.8	mA
	KRC402V			-	-	0.88	
	KRC403V			-	-	0.36	
	KRC404V			-	-	0.18	
	KRC405V			-	-	3.6	
	KRC406V			-	-	1.8	
Input Resistor	KRC401V	R1	-	3.29	4.7	6.11	kΩ
	KRC402V			7	10	13	
	KRC403V			15.4	22	28.6	
	KRC404V			32.9	47	61.1	
	KRC405V			1.54	2.2	2.86	
	KRC406V			3.29	4.7	6.11	
Resistor Ratio	KRC401V ~ 404V	R2/R1	-	0.8	1.0	1.2	
	KRC405V			17	21	26	
	KRC406V			8	10	12	

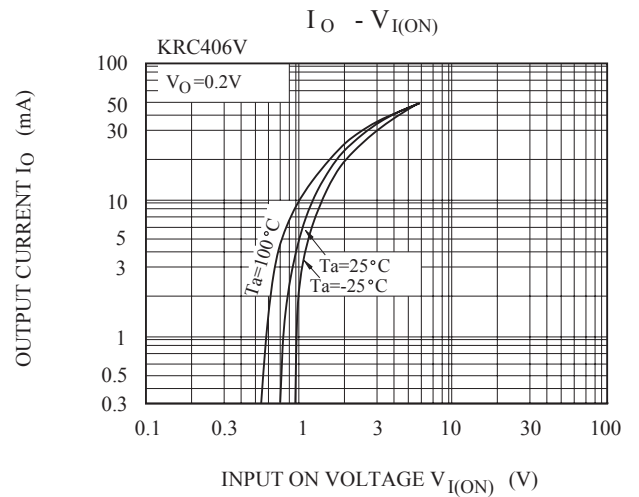
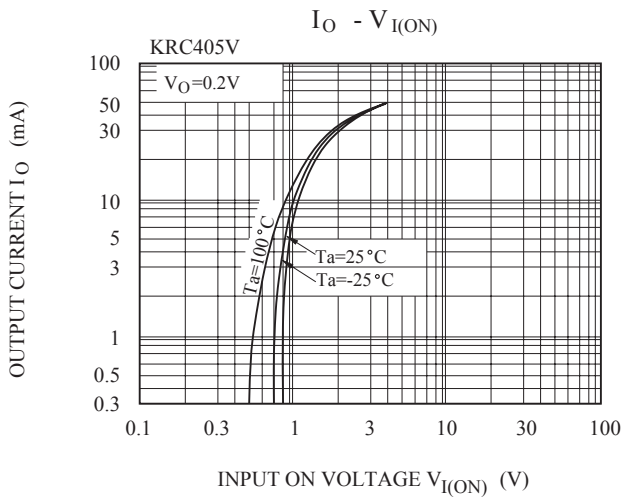
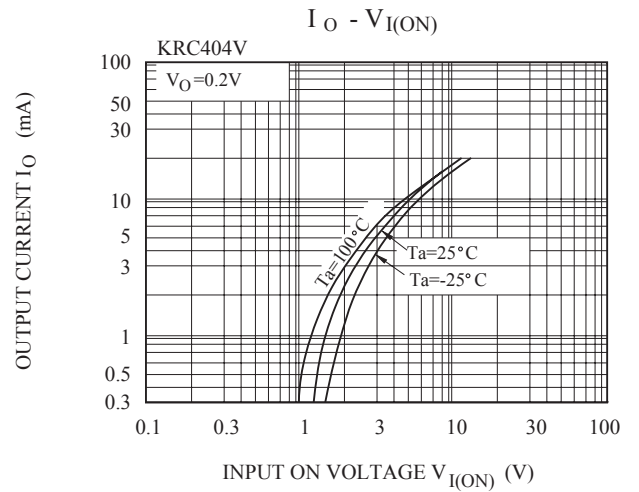
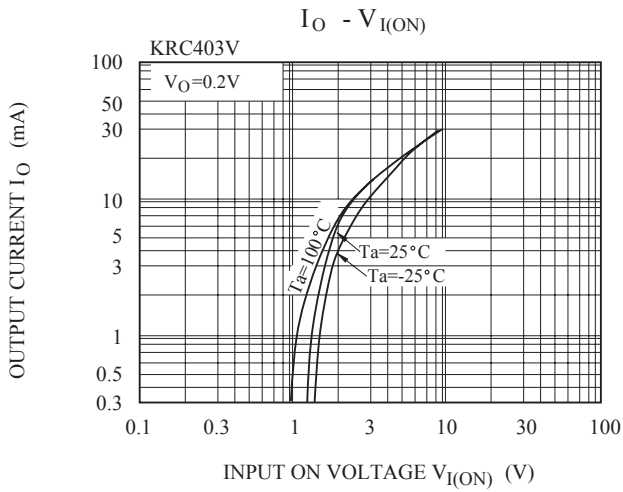
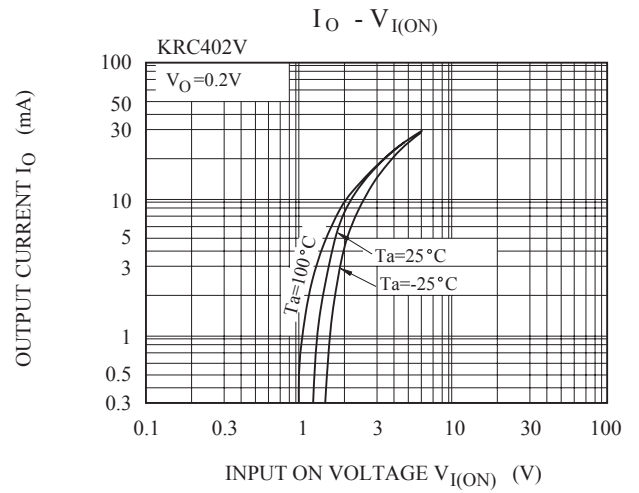
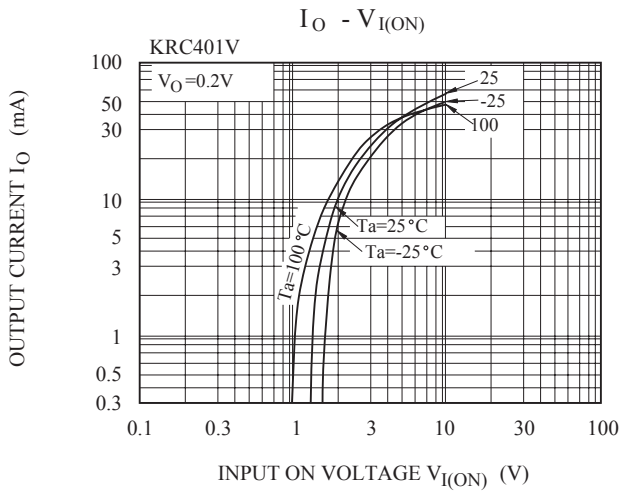
Note : \* Characteristic of Transistor Only.

# KRC401V~KRC406V

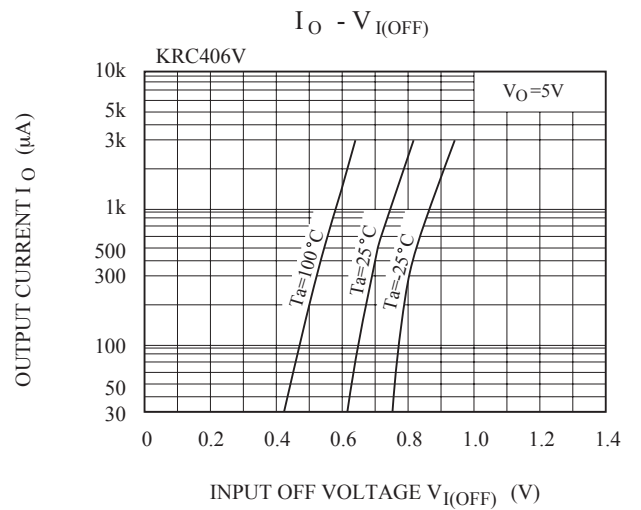
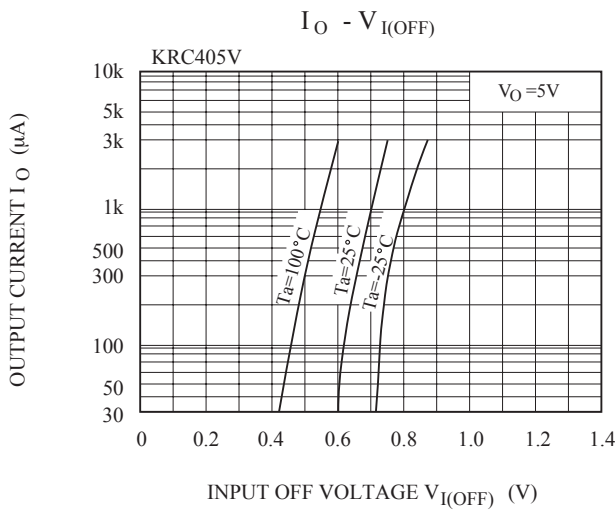
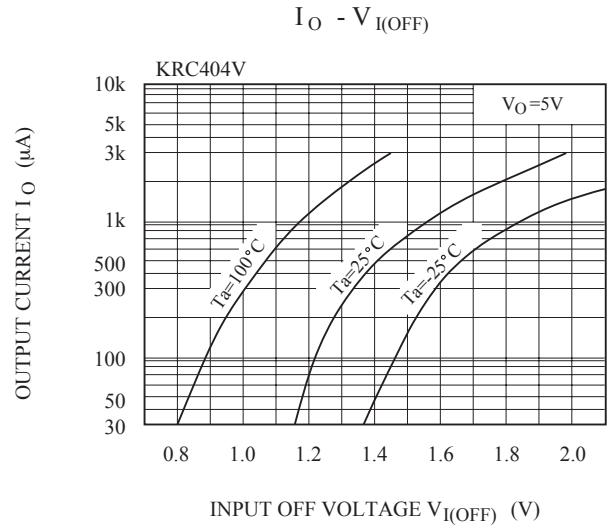
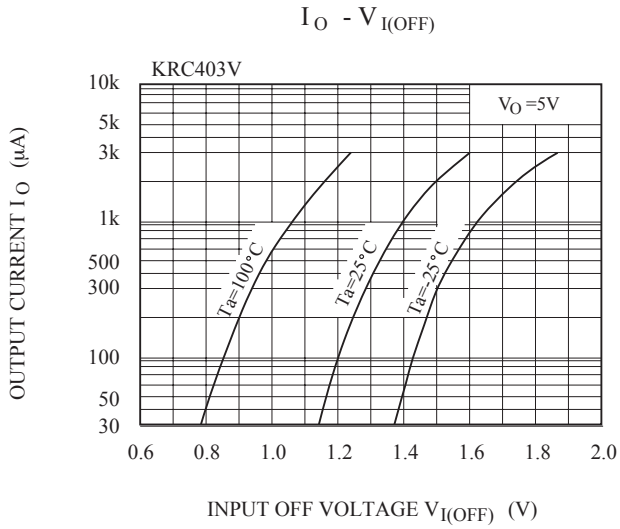
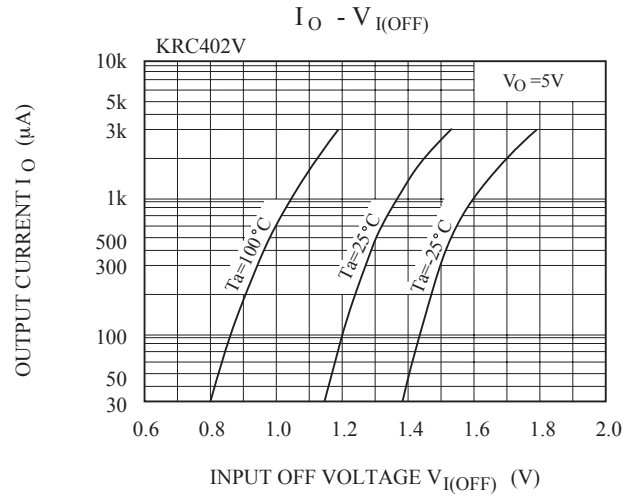
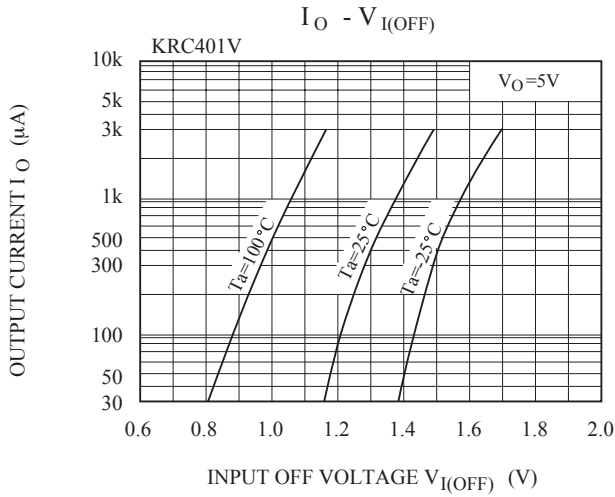
## ELECTRICAL CHARACTERISTICS (Ta=25°C)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Switching Time	Rise Time	KRC401V	V <sub>O</sub> =5V V <sub>IN</sub> =5V R <sub>L</sub> =1kΩ	-	0.03	-	μS
		KRC402V		-	0.05	-	
		KRC403V		-	0.12	-	
		KRC404V		-	0.22	-	
		KRC405V		-	0.01	-	
		KRC406V		-	0.03	-	
	Storage Time	KRC401V		-	2.0	-	
		KRC402V		-	2.0	-	
		KRC403V		-	2.0	-	
		KRC404V		-	2.0	-	
		KRC405V		-	2.0	-	
		KRC406V		-	2.0	-	
	Fall Time	KRC401V		-	0.12	-	
		KRC402V		-	0.36	-	
		KRC403V		-	0.35	-	
		KRC404V		-	0.6	-	
		KRC405V		-	0.1	-	
		KRC406V		-	0.19	-	

# KRC401V~KRC406V



# KRC401V~KRC406V



# KRC401V~KRC406V

