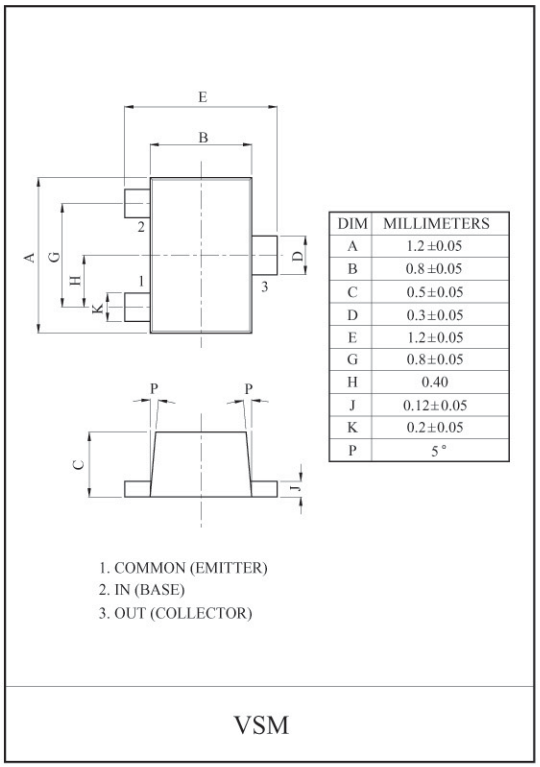
KRA307V~KRA309V

EPITAXIAL PLANAR PNP TRANSISTOR

SWITCHING APPLICATION.
INTERFACE CIRCUIT AND DRIVER CIRCUIT APPLICATION.

FEATURES

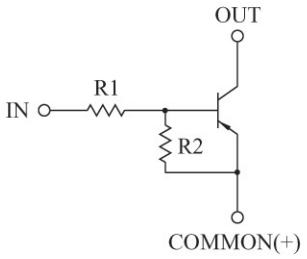
- With Built-in Bias Resistors
- Simplify Circuit Design
- Reduce a Quantity of Parts and Manufacturing Process
- High Packing Density.



DIM	MILLIMETERS
A	1.2±0.05
B	0.8±0.05
C	0.5±0.05
D	0.3±0.05
E	1.2±0.05
G	0.8±0.05
H	0.40
J	0.12±0.05
K	0.2±0.05
P	5°

VSM

EQUIVALENT CIRCUIT



BIAS RESISTOR VALUES

T PE NO.	R1(kΩ)	R2(kΩ)
KRA30 V	10	4
KRA308V	22	4
KRA30 V	4	22

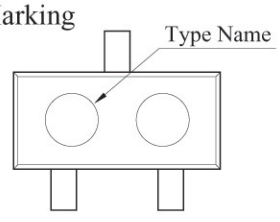
MAXIMUM RATING (Ta=25℃)

CHARACTERISTIC		S MBOL	RATING	UNIT
Output Voltage	KRA30 V ~30 V	V_O	-50	V
Input Voltage	KRA30 V	V_I	-30	V
	KRA308V		-40	
	KRA30 V		-40 15	
Output Current	KRA30 V ~309V	I_O	-100	mA
Po er Dissipation		P_D	100	mW
Junction Temperature		T_j	150	℃
Storage Temperature Range		T_{stg}	-55~150	℃

MARK SPEC

T PE	KRA30 V	KRA308V	KRA30 V
MARK	PH	PI	PJ

Marking

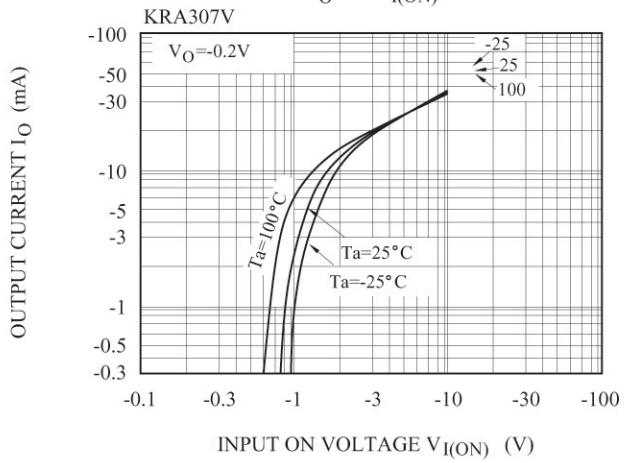


ELECTRICAL CHARACTERISTICS (Ta=25℃)

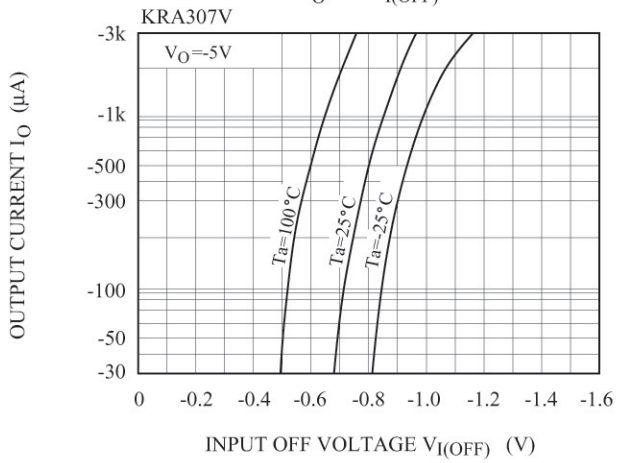
CHARACTERISTIC			SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Output Cut-off Current		KRA307V ~ 309V	$I_{O(OFF)}$	V_O=-50V, V_I=0	-	-	-500	nA
DC Current Gain		KRA307V	G_I	V_O=-5V, I_O=-10mA	80	150	-	
		KRA308V			80	150	-	
		KRA309V			70	140	-	
Output Voltage		KRA307V ~ 309V	$V_{O(ON)}$	I_O=-10mA, I_I=-0.5mA	-	-0.1	-0.3	V
Input Voltage (ON)		KRA307V	$V_{I(ON)}$	V_O=-0.2V, I_O=-5mA	-	-1.2	-1.8	V
		KRA308V			-	-1.8	-2.6	
		KRA309V			-	-3.0	-5.8	
Input Votlage (OFF)		KRA307V	$V_{I(OFF)}$	V_O=-5V, I_O=-0.1mA	-0.5	-0.75	-	V
		KRA308V			-0.6	-0.88	-	
		KRA309V			-1.5	-1.82	-	
Transition Frequency		KRA307V ~ 309V	f_T *	V_O=-10V, I_O=-5mA	-	200	-	MHz
Input Current		KRA307V	I_I	V_I=-5V	-	-	-0.88	mA
		KRA308V			-	-	-0.36	
		KRA309V			-	-	-0.16	
Switching Time	Rise Time	KRA307V	t_r	V_O=-5V, V_{IN}=-5V, R_L=1kΩ	-	0.07	-	μS
		KRA308V			-	0.20	-	
		KRA309V			-	0.38	-	
	Storage Time	KRA307V	t_{stg}		-	1.1	-	
		KRA308V			-	1.3	-	
		KRA309V			-	0.7	-	
	Fall Time	KRA307V	t_f		-	0.35	-	
		KRA308V			-	0.4	-	
		KRA309V			-	0.48	-	
Input Resistor		KRA307V	R1	-	7	10	13	kΩ
		KRA308V			15.4	22	28.6	
		KRA309V			32.9	47	61.1	
Resistor Ratio		KRA307V	R2/R1	-	3.7	4.7	5.7	
		KRA308V			1.7	2.1	2.6	
		KRA309V			0.37	0.47	0.57	

Note : * Characteristic of Transistor Only.

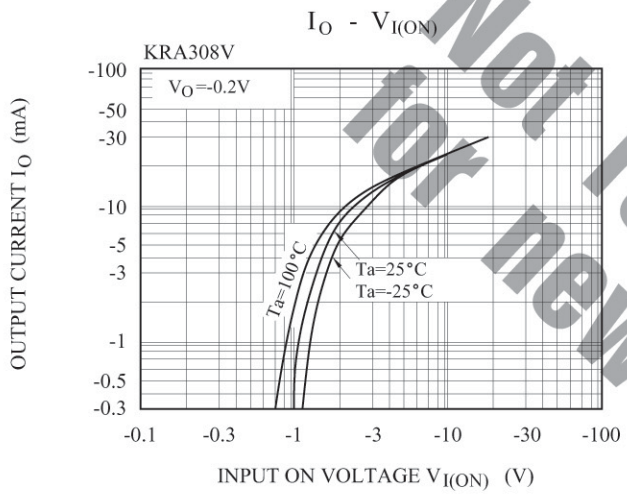
I_O - $V_{I(ON)}$



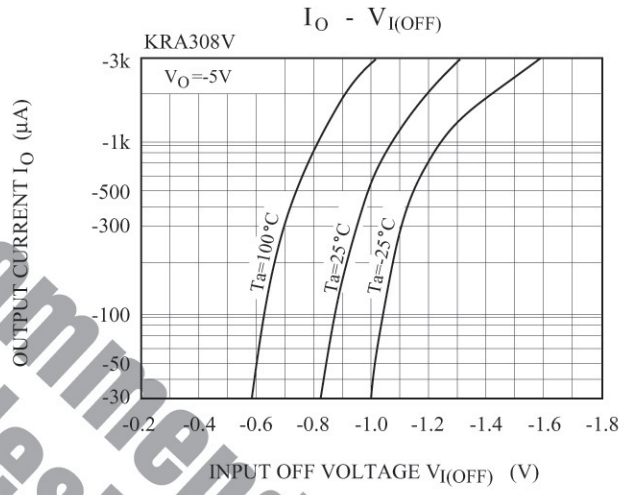
I_O - $V_{I(OFF)}$



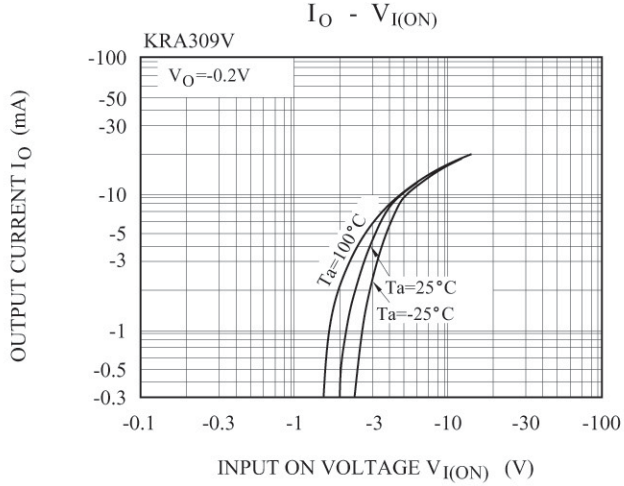
I_O - $V_{I(ON)}$



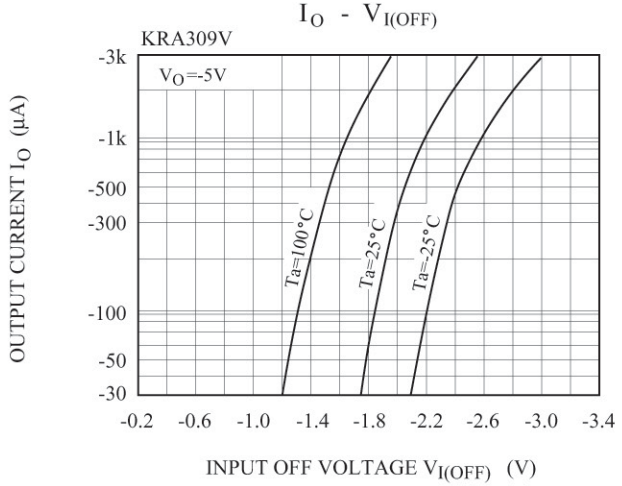
I_O - $V_{I(OFF)}$



I_O - $V_{I(ON)}$

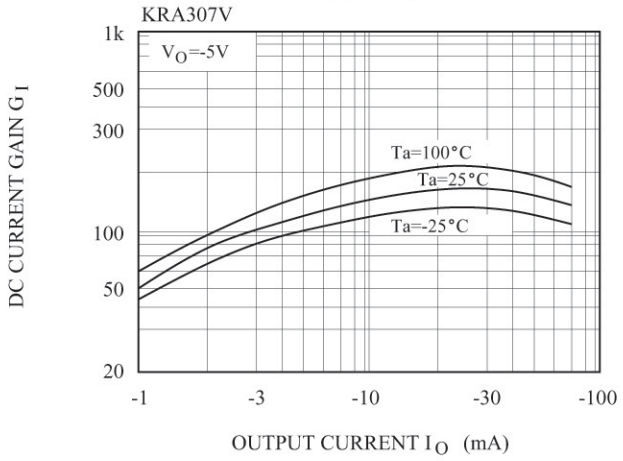


I_O - $V_{I(OFF)}$



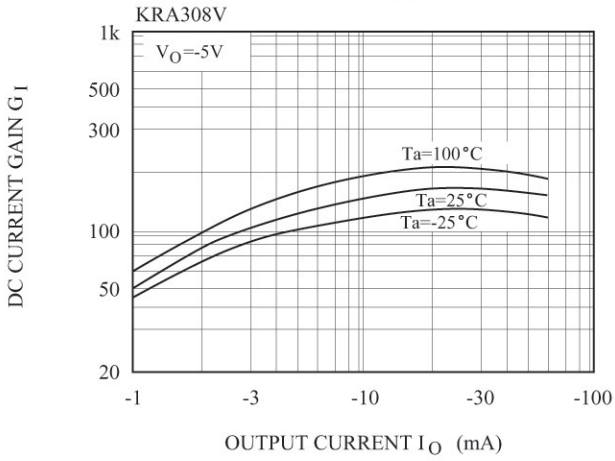
G_I - I_O

KRA307V



G_I - I_O

KRA308V



G_I - I_O

KRA309V