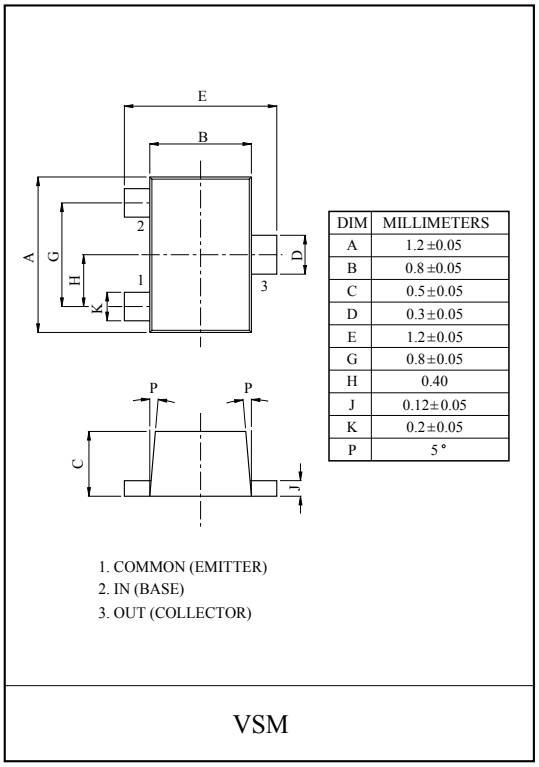
KRC407V~KRC409V

EPITAXIAL PLANAR NPN TRANSISTOR

SWITCHING APPLICATION.
INTERFACE CIRCUIT AND DRIVER CIRCUIT APPLICATION.

FEATURES

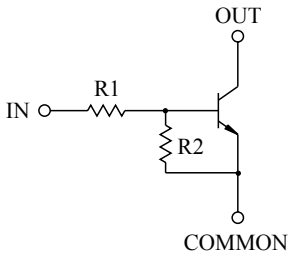
- With Built-in Bias Resistors
- Simplify Circuit Design
- Reduce a Quantity of Parts and Manufacturing Process
- High Packing Density.



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

TYPE NO.	R1(kΩ)	R2(kΩ)
KRC407V	10	47
KRC408V	22	47
KRC409V	47	22

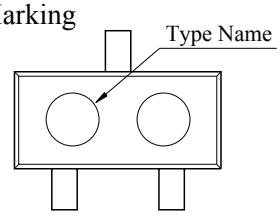
MAXIMUM RATING (Ta=25℃)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Output Voltage	KRC407V~409V	V_O	50	V
Input Voltage	KRC407V	V_I	30, -6	V
	KRC408V		40, -7	
	KRC409V		40,-15	
Output Current	KRC407V~409V	I_O	100	mA
Power Dissipation		P_D	100	mW
Junction Temperature		T_j	150	℃
Storage Temperature Range		T_{stg}	-55~150	℃

MARK SPEC

TYPE	KRC407V	KRC408V	KRC409V
MARK	NH	NI	NJ

Marking

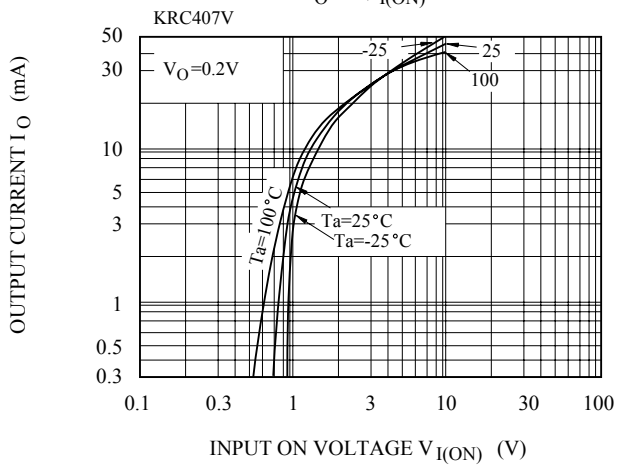


ELECTRICAL CHARACTERISTICS (Ta=25℃)

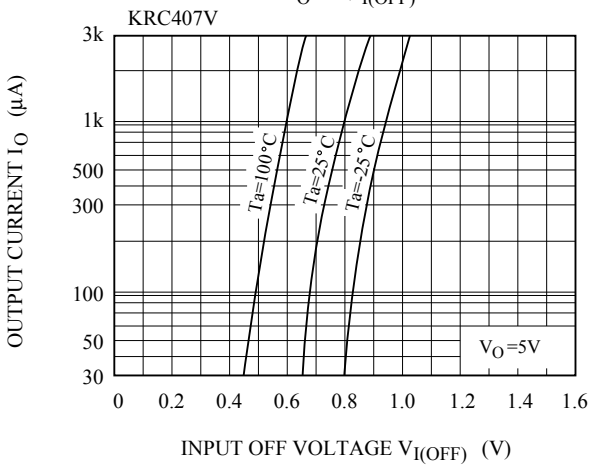
CHARACTERISTIC			SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Output Cut-off Current		KRC407V ~ 409V	$I_{O(OFF)}$	V_O=50V, V_I=0	-	-	500	nA
DC Current Gain		KRC407V	G_I	V_O=5V, I_O=10mA	80	150	-	
		KRC408V			80	150	-	
		KRC409V			70	140	-	
Output Voltage		KRC407V ~ 409V	$V_{O(ON)}$	I_O=10mA, I_I=0.5mA	-	0.1	0.3	V
Input Voltage (ON)		KRC407V	$V_{I(ON)}$	V_O=0.2V, I_O=5mA	-	1.2	1.8	V
		KRC408V			-	1.8	2.6	
		KRC409V			-	3.0	5.8	
Input Votlage (OFF)		KRC407V	$V_{I(OFF)}$	V_O=5V, I_O=0.1mA	0.5	0.75	-	V
		KRC408V			0.6	0.88	-	
		KRC409V			1.5	1.82	-	
Transition Frequency		KRC407V ~ 409V	f_T *	V_O=10V, I_O=5mA	-	200	-	MHz
Input Current		KRC407V	I_I	V_I=5V	-	-	0.88	mA
		KRC408V			-	-	0.36	
		KRC409V			-	-	0.16	
Switching Time	Rise Time	KRC407V	t_r	V_O=5V, V_{IN}=5V R_L=1kΩ	-	0.05	-	μS
		KRC408V			-	0.12	-	
		KRC409V			-	0.26	-	
	Storage Time	KRC407V	t_{stg}		-	2.0	-	
		KRC408V			-	2.4	-	
		KRC409V			-	1.5	-	
	Fall Time	KRC407V	t_f		-	0.36	-	
		KRC408V			-	0.4	-	
		KRC409V			-	0.41	-	

Note : * Characteristic of Transistor Only.

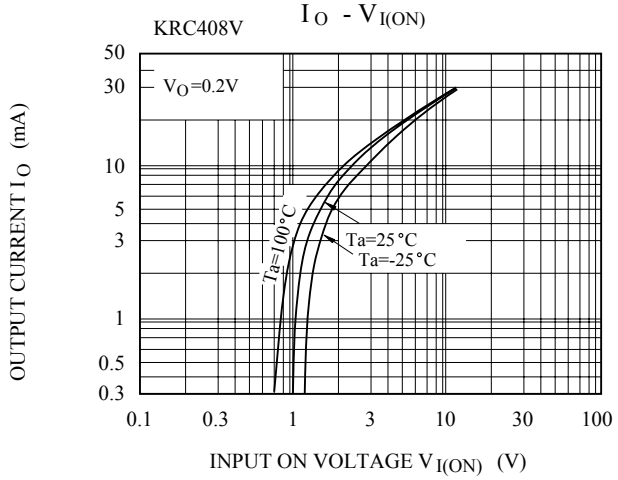
I_O - $V_{I(ON)}$



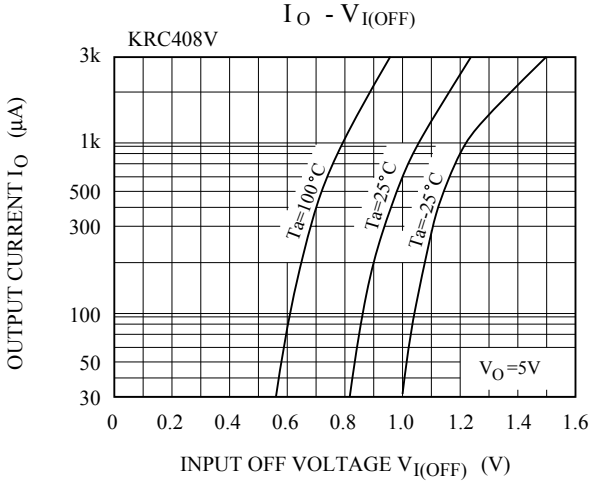
I_O - $V_{I(OFF)}$



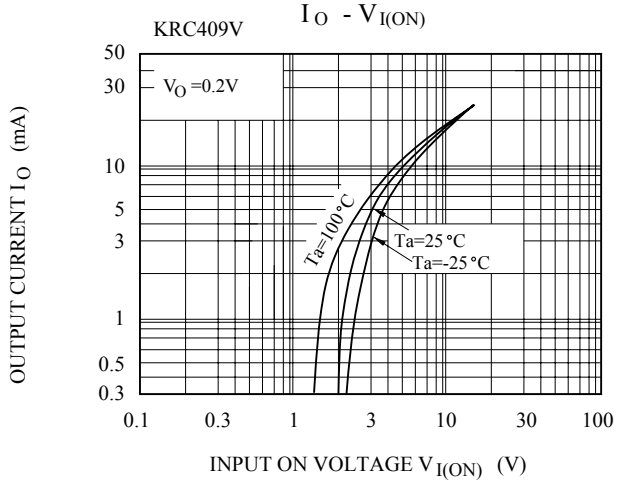
I_O - $V_{I(ON)}$



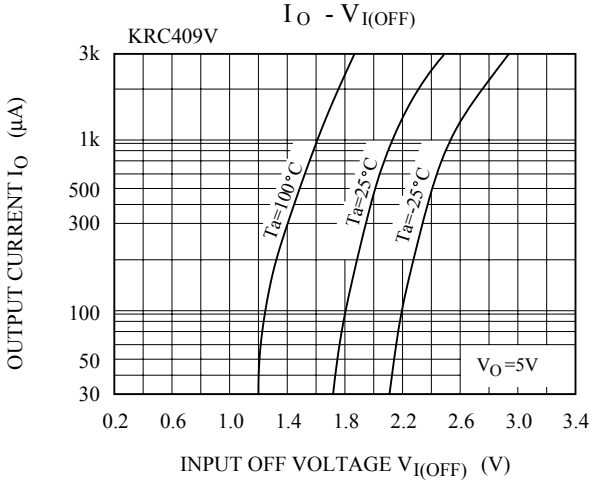
I_O - $V_{I(OFF)}$



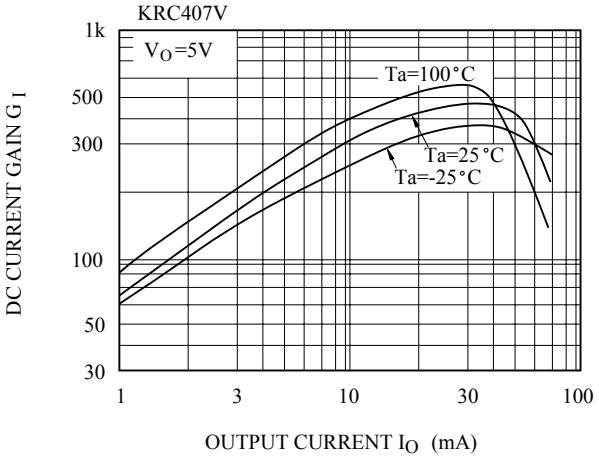
I_O - $V_{I(ON)}$



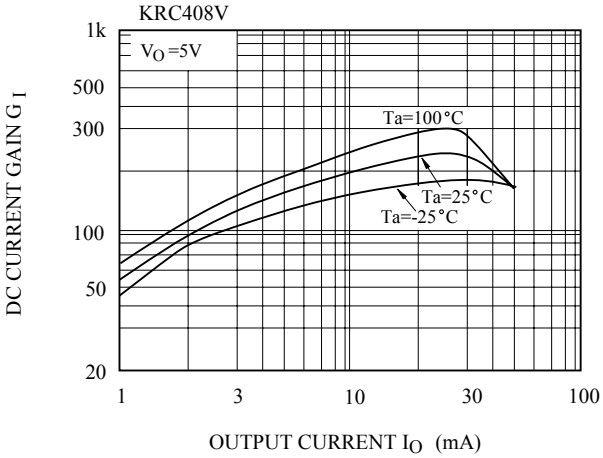
I_O - $V_{I(OFF)}$



G_I - I_O



G_I - I_O



G_I - I_O