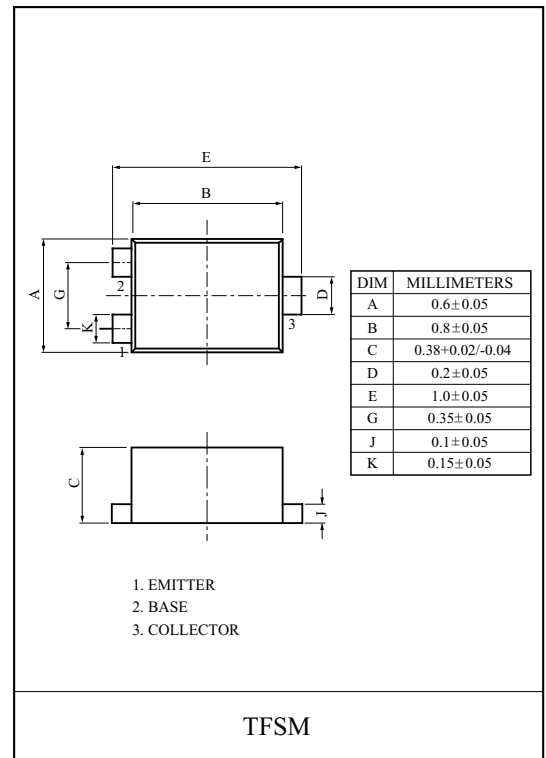
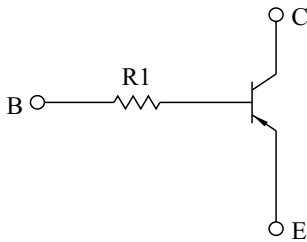


SWITCHING APPLICATION.
INTERFACE CIRCUIT AND DRIVER CIRCUIT APPLICATION.

FEATURES

- With Built-in Bias Resistors.
- Simplify Circuit Design.
- Reduce a Quantity of Parts and Manufacturing Process.
- Thin Fine Pitch Small Package.

EQUIVALENT CIRCUIT



MAXIMUM RATING (Ta=25 °C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	-20	V
Collector-Emitter Voltage	V_{CEO}	-20	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current	I_C	-50	mA

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector Power Dissipation	P_C	50	mW
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	-55 ~ 150	°C

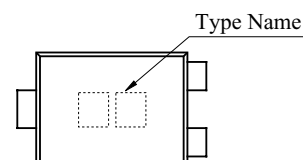
ELECTRICAL CHARACTERISTICS (Ta=25 °C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CB}=-20V, I_E=0$	-	-	-100	nA
Emitter Cut-off Current	I_{EBO}	$V_{EB}=-5V, I_C=0$	-	-	-100	nA
DC Current Gain	h_{FE}	$V_{CE}=-5V, I_C=-1mA$	300	-	-	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=-5mA, I_B=-0.25mA$	-	-	-0.15	V
Collector output capacitance	C_{ob}	$V_{CB}=-10V, I_E=0, f=1MHz$	-	1.2	-	pF
Input Resistor	KRA160F	-	-	4.7	-	k Ω
	KRA161F			10		
	KRA163F			22		
	KRA164F			47		

MARK SPEC

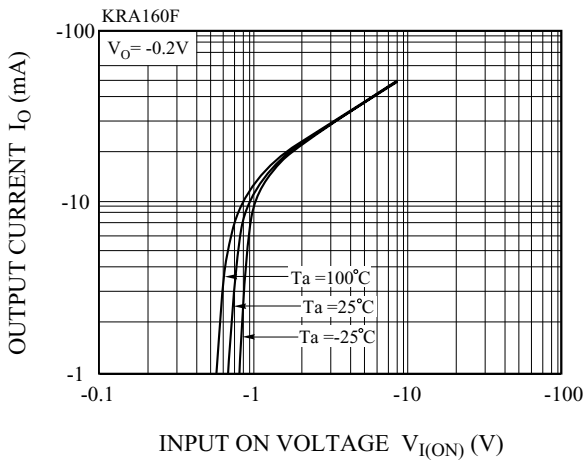
TYPE	KRA160F	KRA161F	KRA163F	KRA164F
MARK	GK	GL	GN	GP

Marking

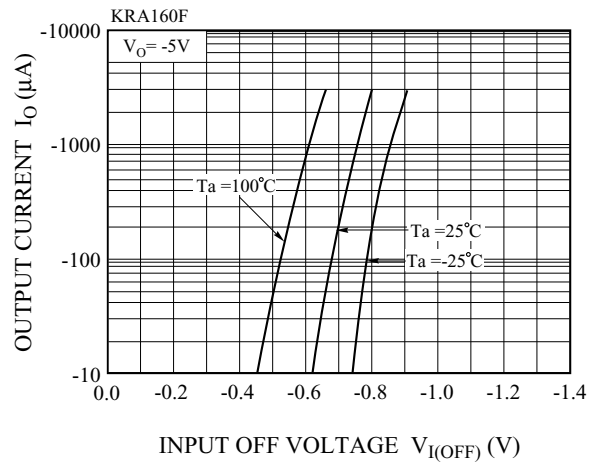


KRA160F~KRA164F

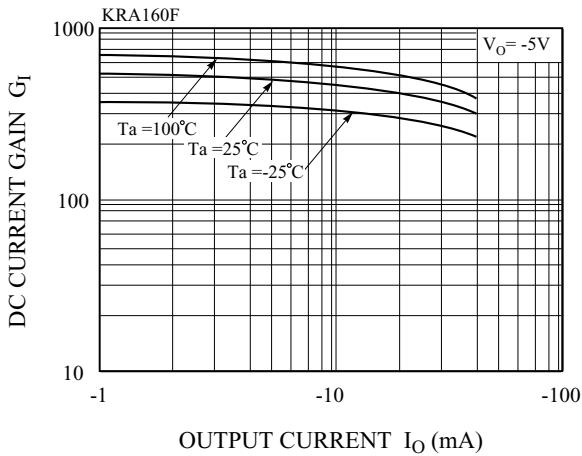
$I_O - V_{I(ON)}$



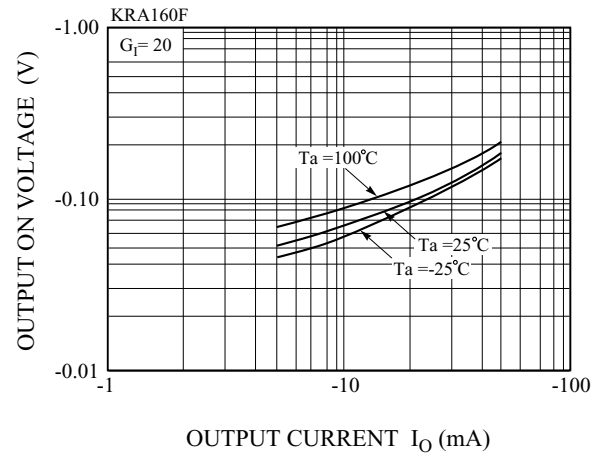
$I_O - V_{I(OFF)}$



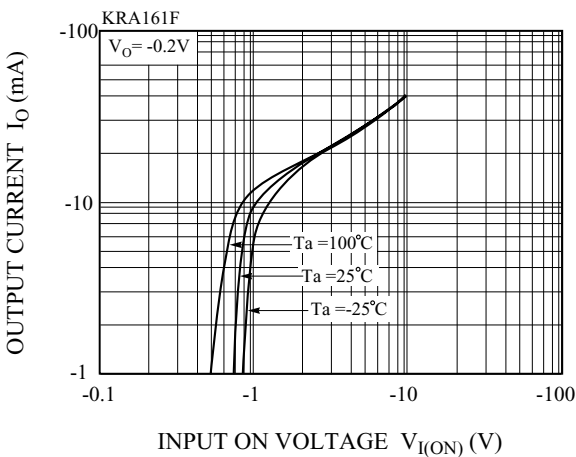
$G_I - I_O$



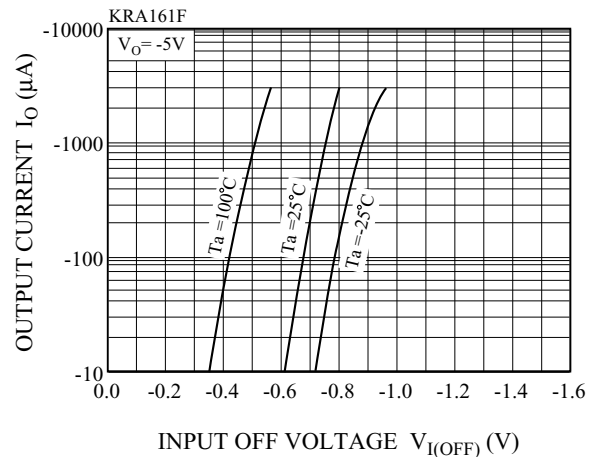
$V_{O(ON)} - I_O$



$I_O - V_{I(ON)}$

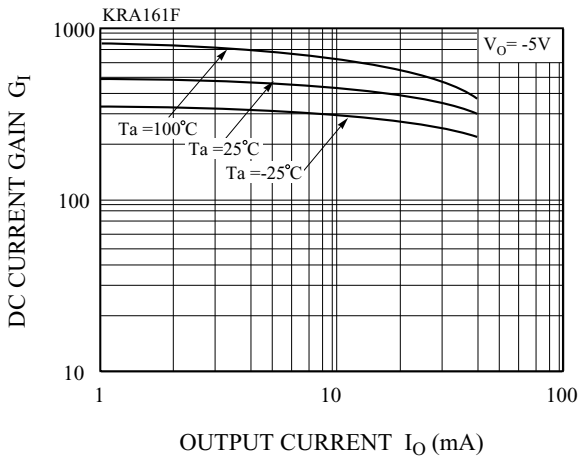


$I_O - V_{I(OFF)}$

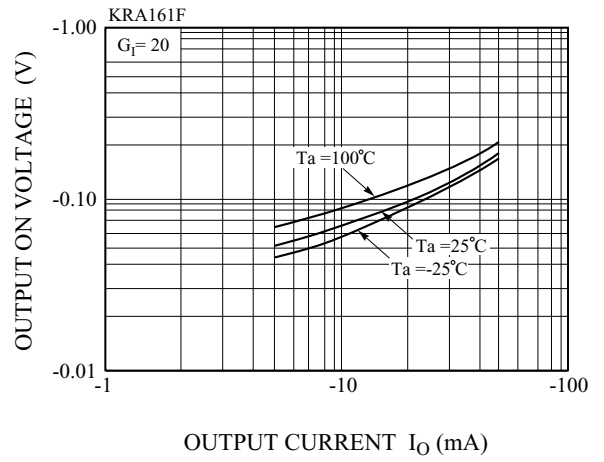


KRA160F~KRA164F

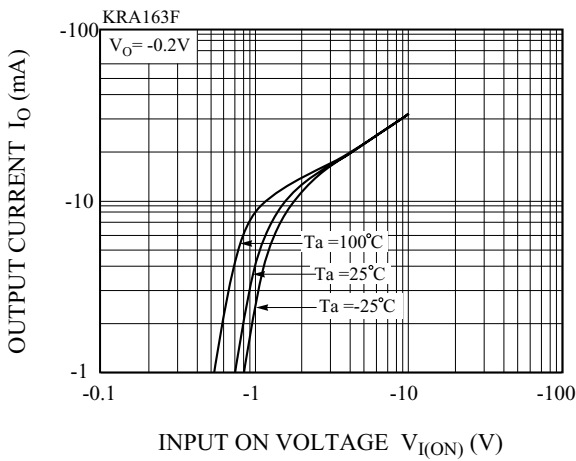
$G_I - I_O$



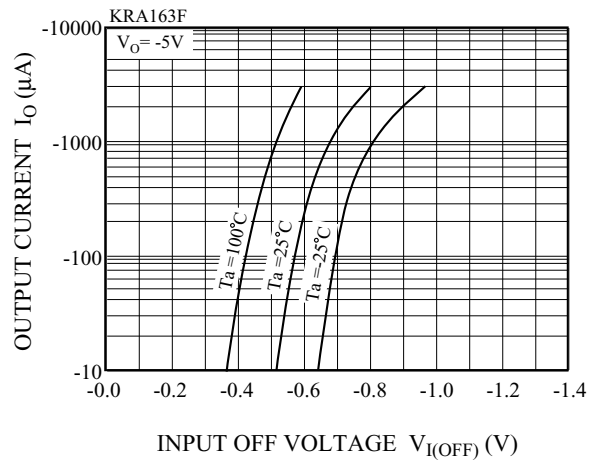
$V_{O(ON)} - I_O$



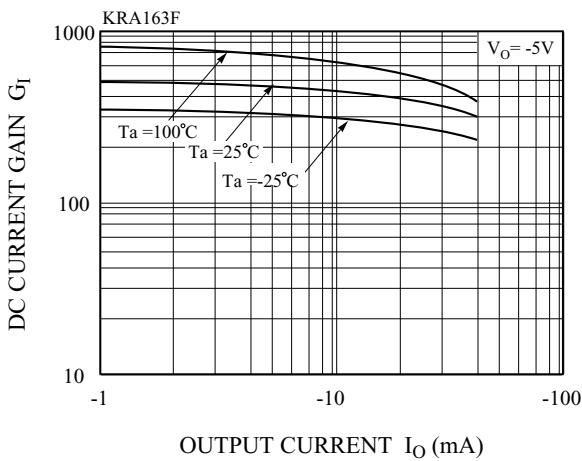
$I_O - V_{I(ON)}$



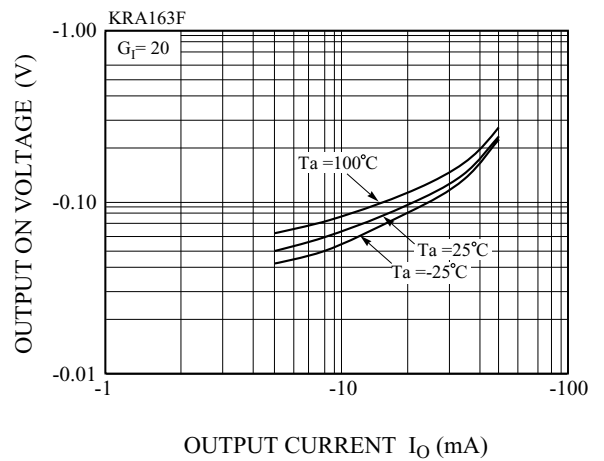
$I_O - V_{I(OFF)}$



$G_I - I_O$

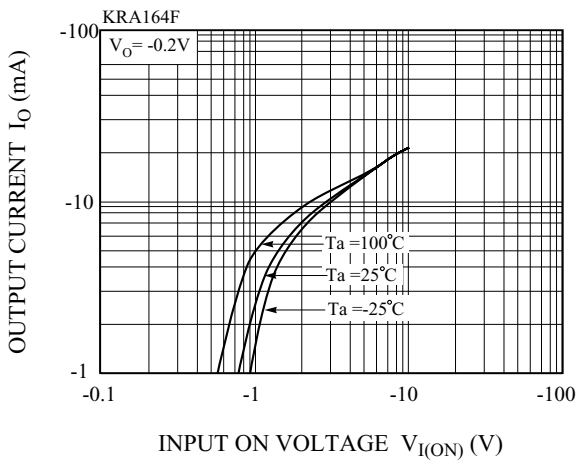


$V_{O(ON)} - I_O$

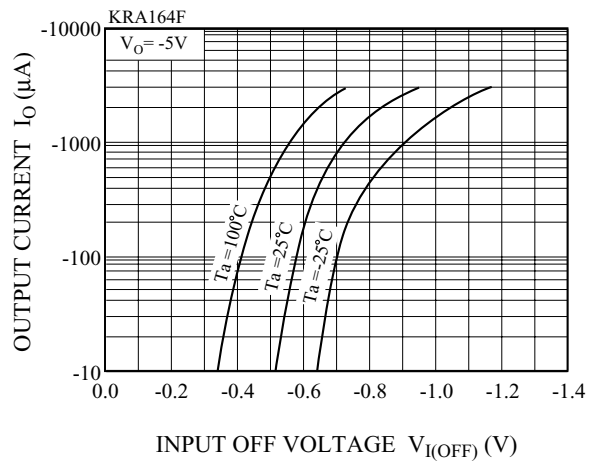


KRA160F~KRA164F

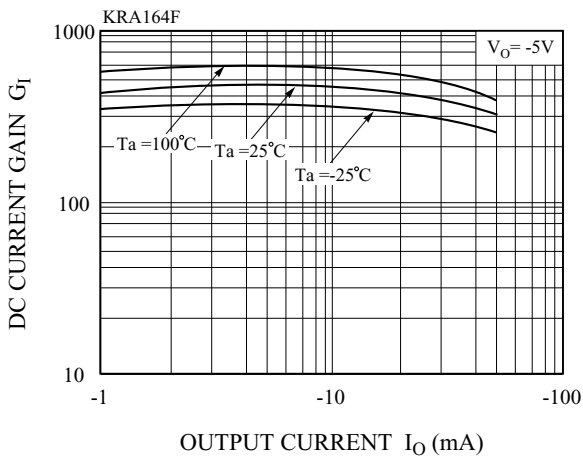
$I_O - V_{I(ON)}$



$I_O - V_{I(OFF)}$



$G_I - I_O$



$V_{O(ON)} - I_O$

