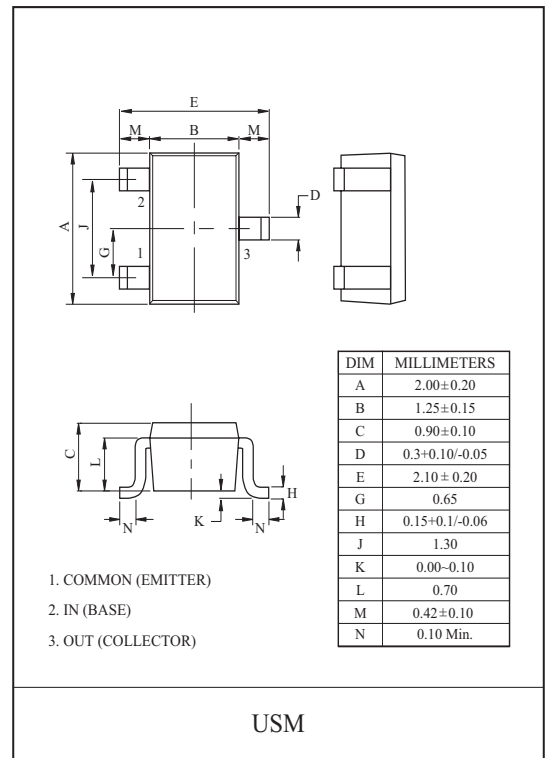
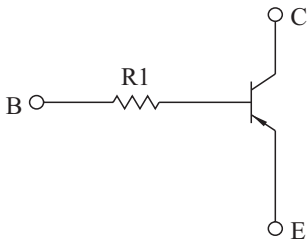


**SWITCHING APPLICATION.
INTERFACE CIRCUIT AND DRIVER CIRCUIT APPLICATION.**

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) KRA311-RTK/HU

EQUIVALENT CIRCUIT



MAXIMUM RATING (Ta=25)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	-50	V
Collector-Emitter Voltage	V_{CEO}	-50	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current	I_C	-100	mA

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector Power Dissipation	P_C	100	mW
Junction Temperature	T_j	-55~150	
Storage Temperature Range	T_{stg}	-55~150	

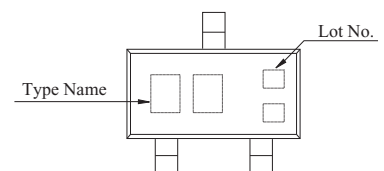
ELECTRICAL CHARACTERISTICS (Ta=25)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT	
Collector Cut-off Current	I_{CBO}	$V_{CB}=-50V, I_E=0$	-	-	-100	nA	
Emitter Cut-off Current	I_{EBO}	$V_{EB}=-5V, I_C=0$	-	-	-100	nA	
DC Current Gain	h_{FE}	$V_{CE}=-5V, I_C=-1mA$	120	-	-		
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=-10mA, I_B=-0.5mA$	-	-0.1	-0.3	V	
Transition Frequency	f_T^*	$V_{CE}=-10V, I_C=-5mA$	-	250	-	MHz	
Input Resistor	KRA310	R_1		3.29	4.7	6.11	k
	KRA311			7	10	13	
	KRA312			70	100	130	
	KRA313			15.4	22	28.6	
	KRA314			32.9	47	61.1	

MARK SPEC

TYPE	KRA310	KRA311	KRA312	KRA313	KRA314
MARK	PK	PM	PN	PO	PP

Marking

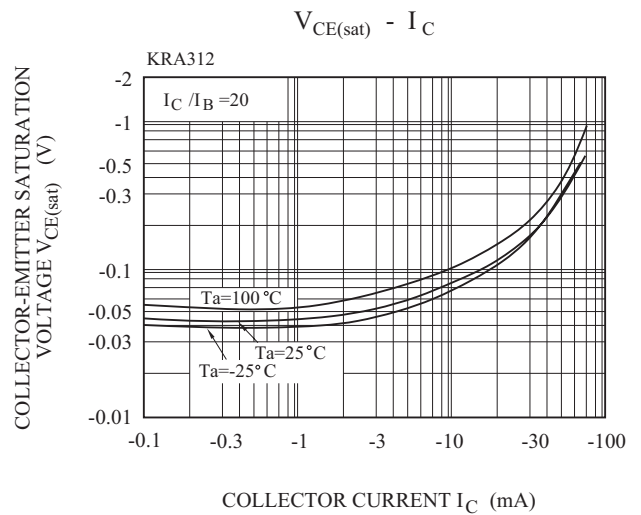
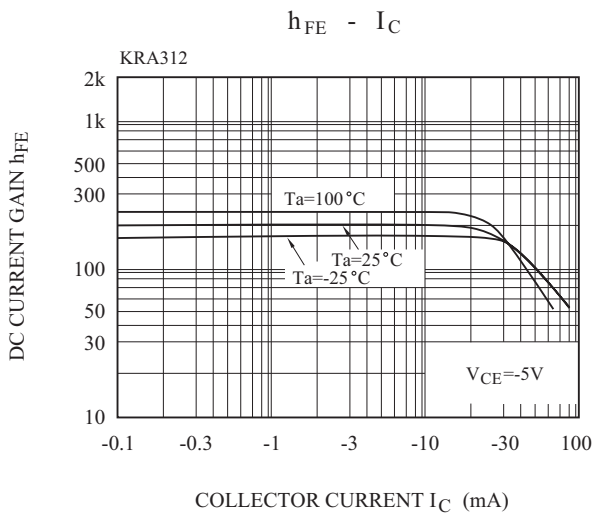
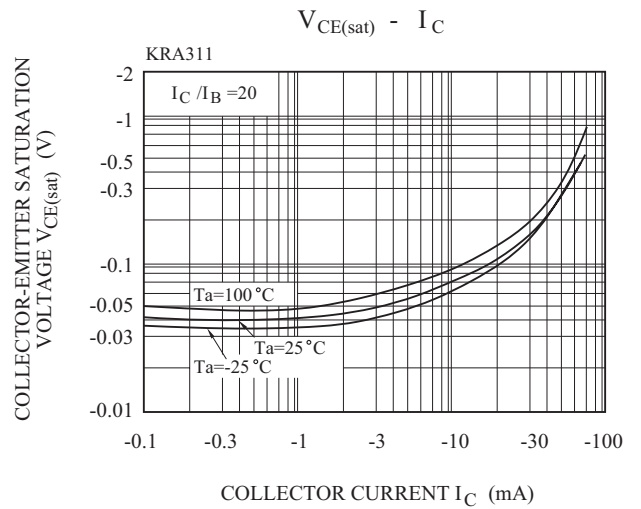
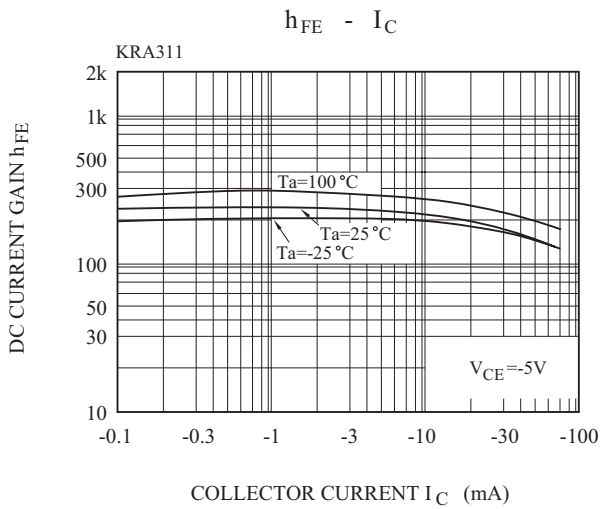
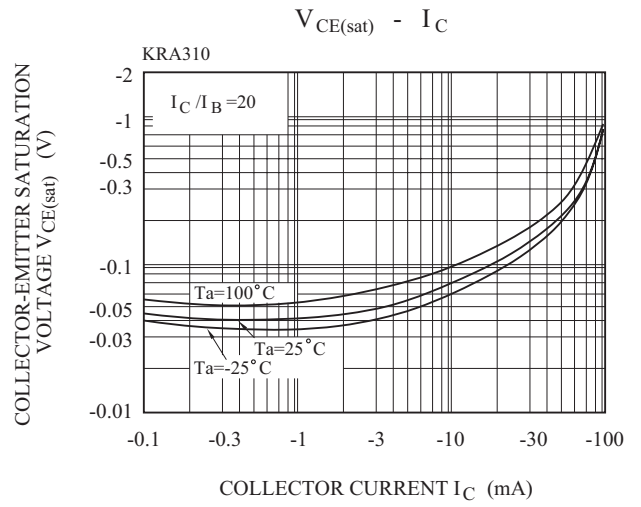
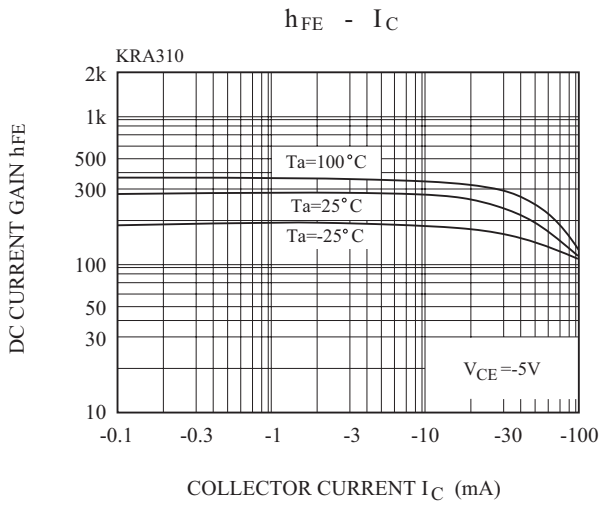


KRA310~KRA314

ELECTRICAL CHARACTERISTICS (Ta=25)

CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Switching Time	Rise Time	KRA310	V _O =-5V V _{IN} =-5V R _L =1k	-	0.2	-	μS
		KRA311		-	0.065	-	
		KRA312		-	0.4	-	
		KRA313		-	0.1	-	
		KRA314		-	0.15	-	
	Storage Time	KRA310		-	2.0	-	
		KRA311		-	1.7	-	
		KRA312		-	3.0	-	
		KRA313		-	2.0	-	
		KRA314		-	1.5	-	
	Fall Time	KRA310		-	0.3	-	
		KRA311		-	0.3	-	
		KRA312		-	1.7	-	
		KRA313		-	0.8	-	
		KRA314		-	1.5	-	

KRA310~314



KRA310~314

