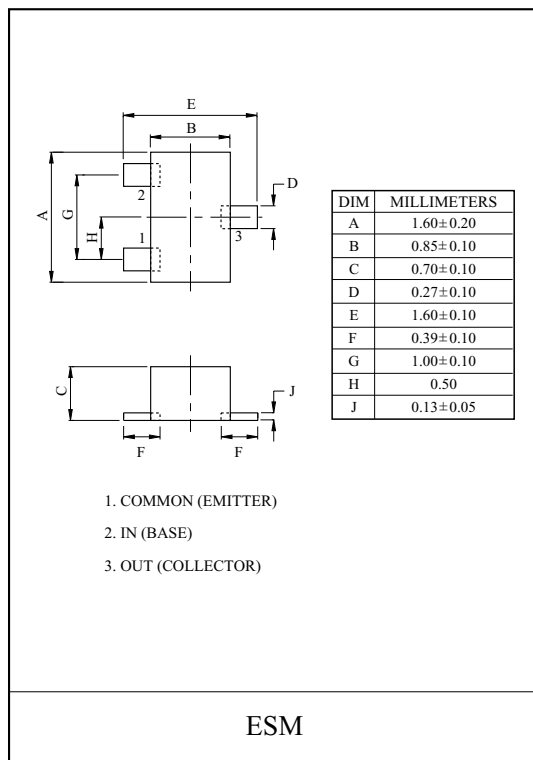
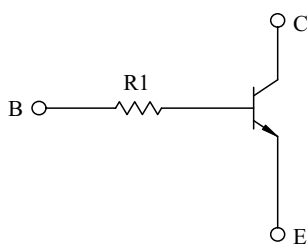


SWITCHING APPLICATION.  
INTERFACE CIRCUIT AND DRIVER CIRCUIT APPLICATION.

### FEATURES

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

### 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	$T_j$	150	
Storage Temperature Range	$T_{stg}$	-55 150	

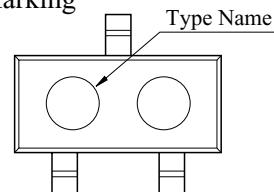
### ELECTRICAL CHARACTERISTICS (Ta=25 )

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	KRC410E	$R_1$		3.29	4.7	6.11	k
	KRC411E			7	10	13	
	KRC412E			70	100	130	
	KRC413E			15.4	22	28.6	
	KRC414E			32.9	47	61.1	

### MARK SPEC

TYPE	KRC410E	KRC411E	KRC412E	KRC413E	KRC414E
MARK	NK	NM	NN	NO	NP

### Marking

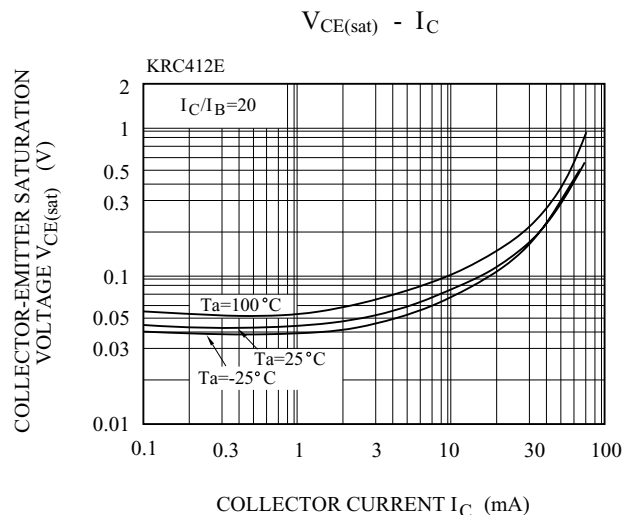
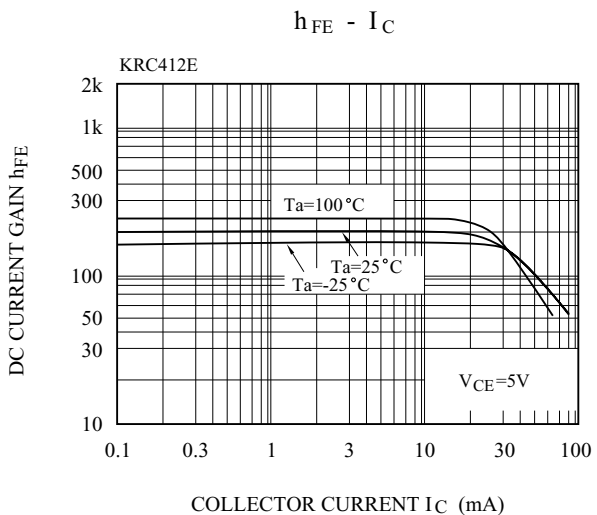
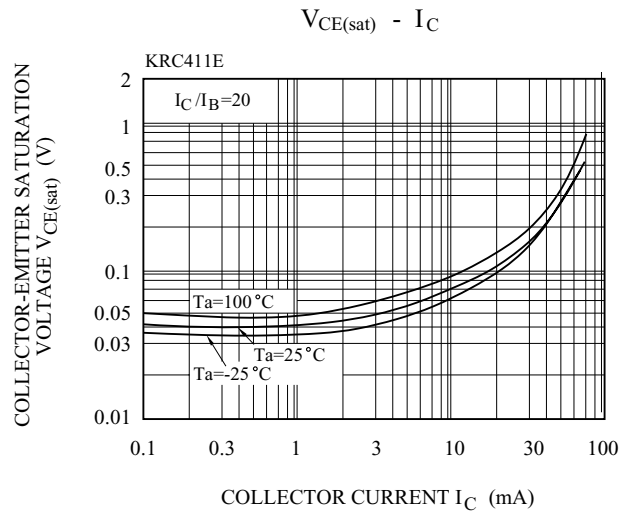
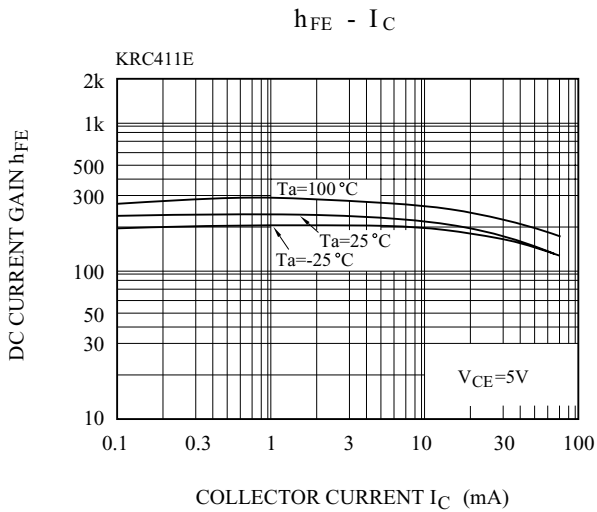
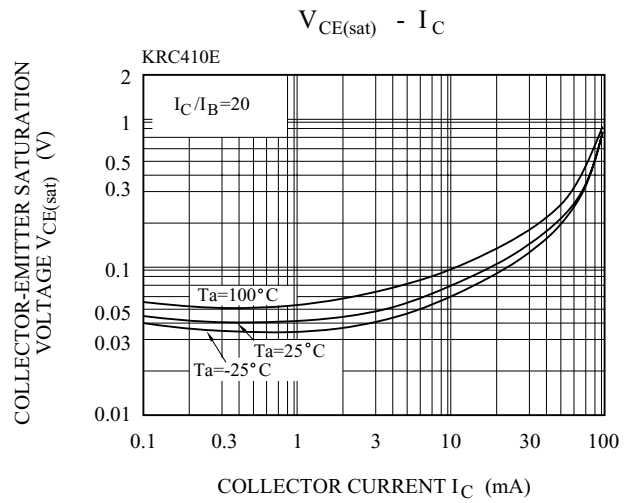
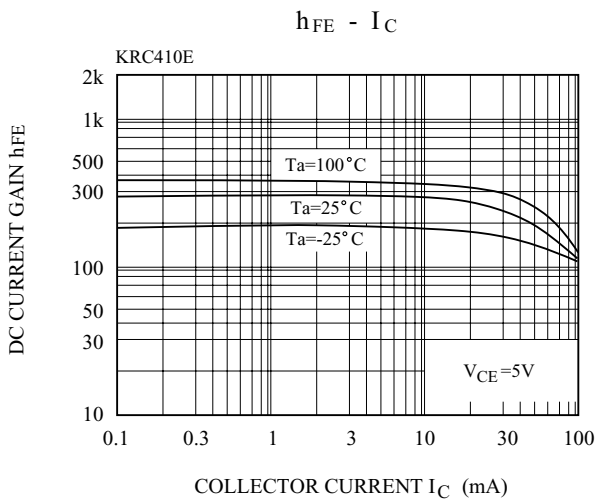


# KRC410E~KRC414E

## ELECTRICAL CHARACTERISTICS (Ta=25 )

CHARACTERISTIC			SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Switching Time	Rise Time	KRC410E	$t_r$	$V_O=5V$ $V_{IN}=5V$ $R_L=1k$	-	0.025	-	$\mu s$
		KRC411E			-	0.03	-	
		KRC412E			-	0.3	-	
		KRC413E			-	0.06	-	
		KRC414E			-	0.11	-	
	Storage Time	KRC410E	$t_{stg}$		-	3.0	-	
		KRC411E			-	2.0	-	
		KRC412E			-	6.0	-	
		KRC413E			-	4.0	-	
		KRC414E			-	5.0	-	
	Fall Time	KRC410E	$t_f$		-	0.2	-	
		KRC411E			-	0.12	-	
		KRC412E			-	2.0	-	
		KRC413E			-	0.9	-	
		KRC414E			-	1.4	-	

# KRC410E~KRC414E



# KRC410E~KRC414E

