KRC860U~KRC864U

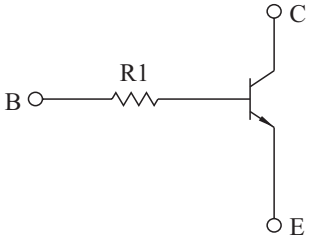
EPITAXIAL PLANAR NPN TRANSISTOR

SWITCHING APPLICATION.
INTERFACE CIRCUIT AND DRIVER CIRCUIT APPLICATION.

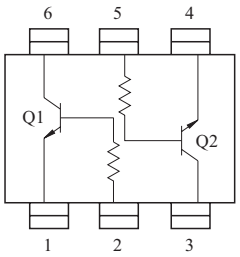
FEATURES

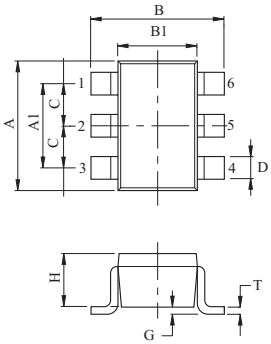
- With Built-in Bias Resistors.
- Simplify Circuit Design.
- Reduce a Quantity of Parts and Manufacturing Process.
- High Packing Density.

EQUIVALENT CIRCUIT



EQUIVALENT CIRCUIT (TOP VIEW)





DIM	MILLIMETERS
A	2.00±0.20
A1	1.3±0.1
B	2.1±0.1
B1	1.25±0.1
C	0.65
D	0.2+0.10/-0.05
G	0-0.1
H	0.9±0.1
T	0.15+0.1/-0.05

1. Q_1 EMITTER
2. Q_1 BASE
3. Q_2 COLLECTOR
4. Q_2 EMITTER
5. Q_2 BASE
6. Q_1 COLLECTOR

US6

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 *	200	mW
Junction Temperature	T_j	150	℃
Storage Temperature Range	T_{stg}	-55 ~ 150	℃

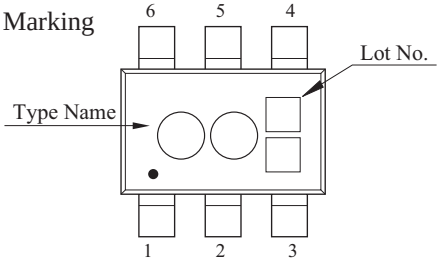
* Total Rating.

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	KRC860U	R_1		-	4.7	-	k Ω
	KRC861U			-	10	-	
	KRC862U			-	100	-	
	KRC863U			-	22	-	
	KRC864U			-	47	-	

Note : * Characteristic of Transistor Only.

Marking



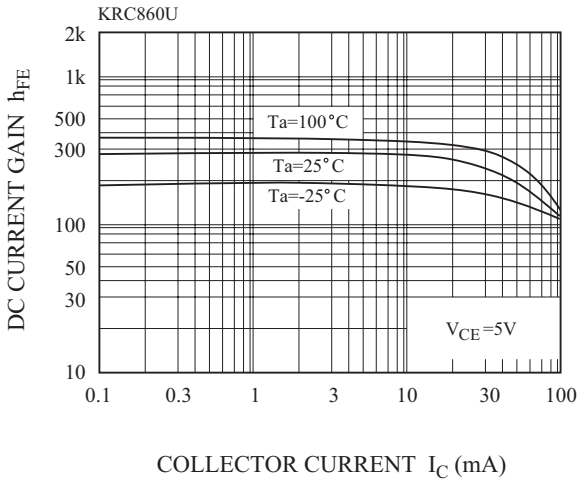
MARK SPEC

TYPE	KRC860U	KRC861U	KRC862U	KRC863U	KRC864U
MARK	NK	NM	NN	NO	NP

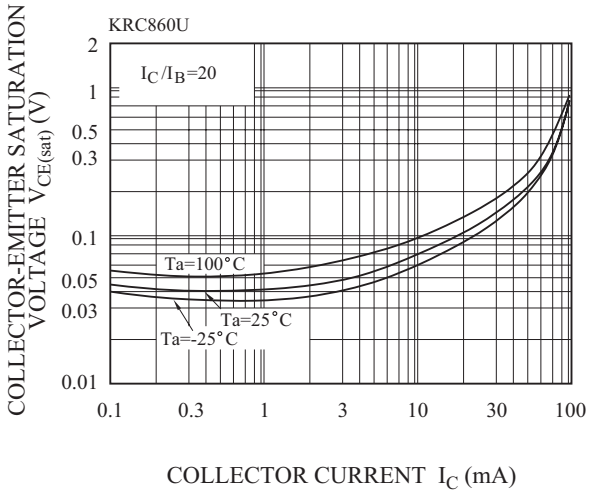
ELECTRICAL CHARACTERISTICS (Ta=25℃)

CHARACTERISTIC			SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Switching Time	Rise Time	KRC860U	t_r	V_O=5V V_{IN}=5V R_L=1k Ω	-	0.025	-	μS
		KRC861U			-	0.03	-	
		KRC862U			-	0.3	-	
		KRC863U			-	0.06	-	
		KRC864U			-	0.11	-	
	Storage Time	KRC860U	t_{stg}		-	3.0	-	
		KRC861U			-	2.0	-	
		KRC862U			-	6.0	-	
		KRC863U			-	4.0	-	
		KRC864U			-	5.0	-	
	Fall Time	KRC860U	t_f		-	0.2	-	
		KRC861U			-	0.12	-	
		KRC862U			-	2.0	-	
		KRC863U			-	0.9	-	
		KRC864U			-	1.4	-	

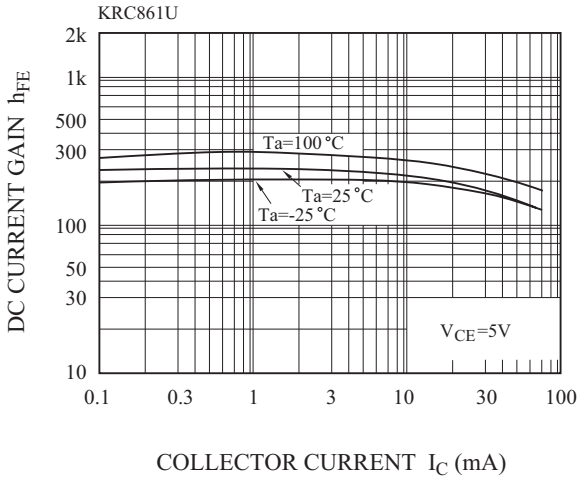
h_{FE} - I_C



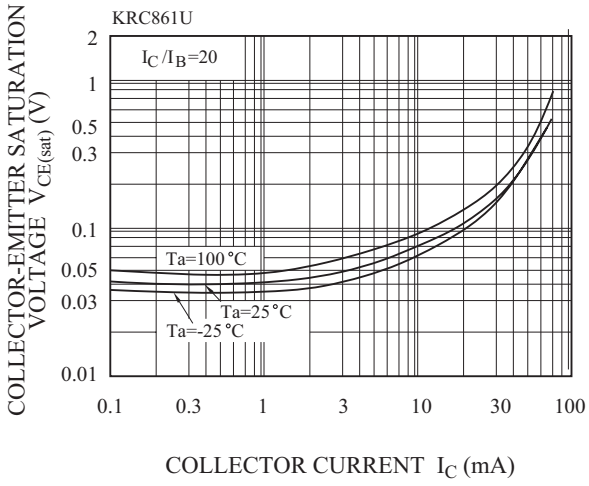
$V_{CE(sat)}$ - I_C



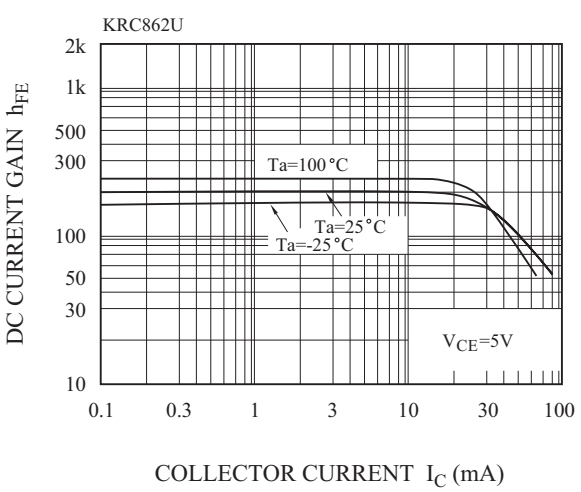
h_{FE} - I_C



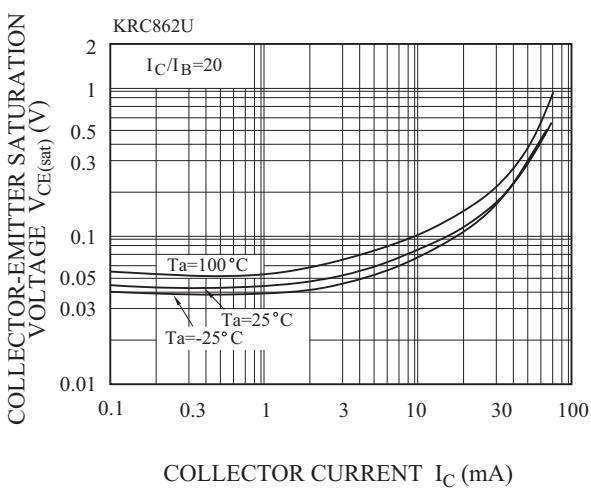
$V_{CE(sat)}$ - I_C



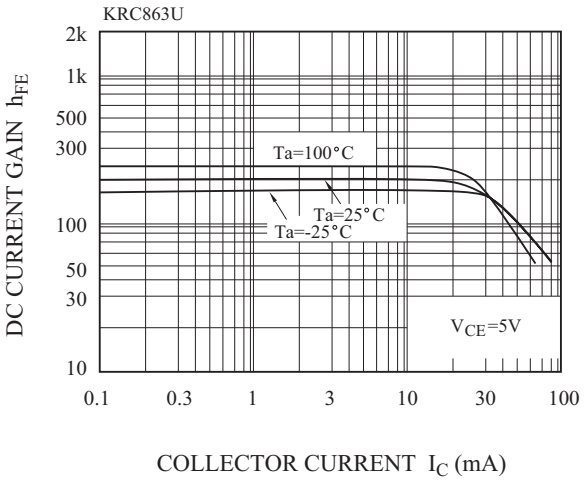
h_{FE} - I_C



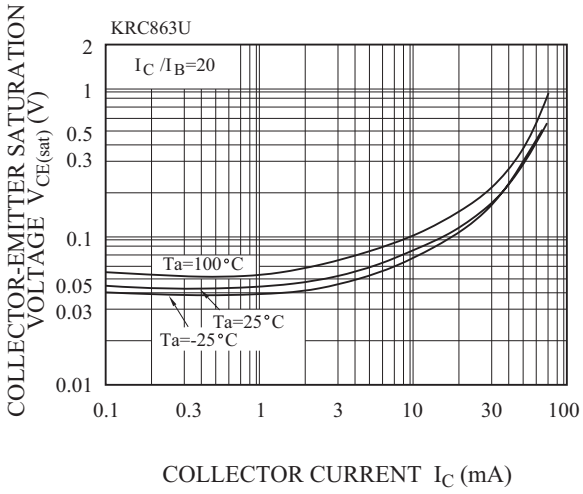
$V_{CE(sat)}$ - I_C



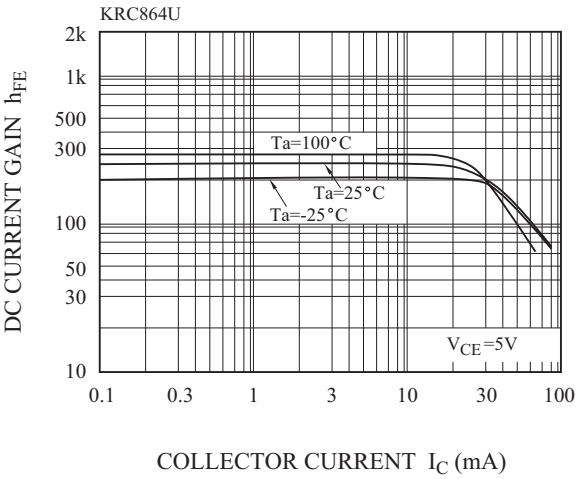
h_{FE} - I_C



$V_{CE(sat)}$ - I_C



h_{FE} - I_C



$V_{CE(sat)}$ - I_C