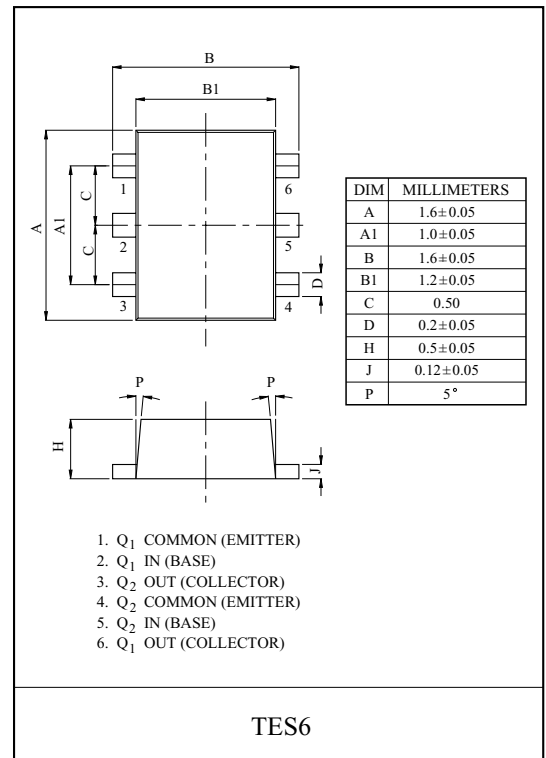
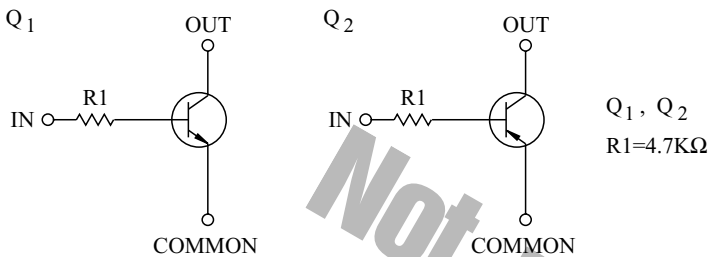


SWITCHING APPLICATION.
INTERFACE CIRCUIT AND DRIVER CIRCUIT APPLICATION.

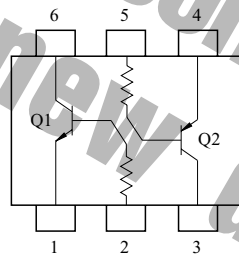
FEATURES

- Including two devices in TES6.
(Thin Extreme Super mini type with 6 pin.)
- With Built-in bias resistors.
- Simplify circuit design.
- Reduce a quantity of parts and manufacturing process.

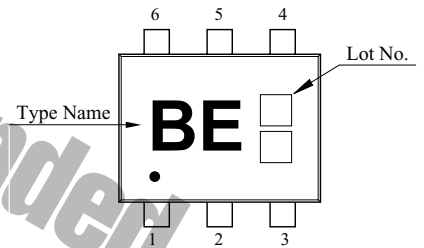
EQUIVALENT CIRCUIT



EQUIVALENT CIRCUIT (TOP VIEW)



Marking



Q1 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

Q2 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

Q1, Q2 MAXIMUM RATING (Ta=25)

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.

KRX205E

Q1 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		R_1		32.9	4.7	6.11	kΩ
Switching Time	Ries time	t_r	$V_O=5V, V_{IN}=5V, R_L=1k$	-	0.025	-	μs
	Storage Time	t_{stg}		-	3.0	-	
	Fall Time	t_f		-	0.2	-	

Note : * Characteristic of Transistor Only.

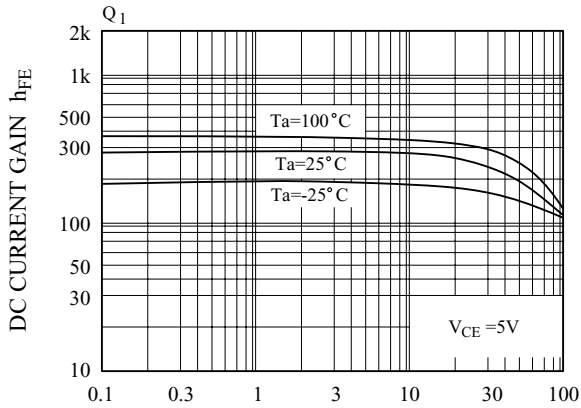
Q2 ELECTRICAL CHARACTERISTICS (Ta=25)

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		R_1		32.9	4.7	6.11	kΩ
Switching Time	Ries time	t_r	$V_O=-5V, V_{IN}=-5V, R_L=1k$	-	0.2	-	μs
	Storage Time	t_{stg}		-	2.0	-	
	Fall Time	t_f		-	0.3	-	

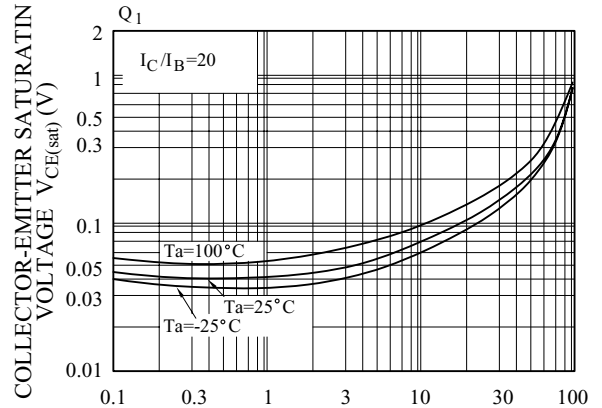
Note : * Characteristic of Transistor Only.

KRX205E

$h_{FE} - I_C$



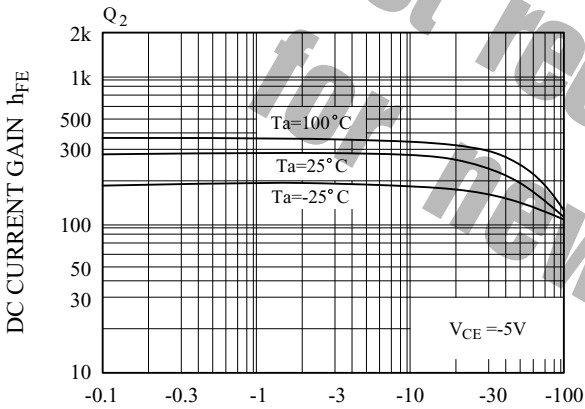
$V_{CE(sat)} - I_C$



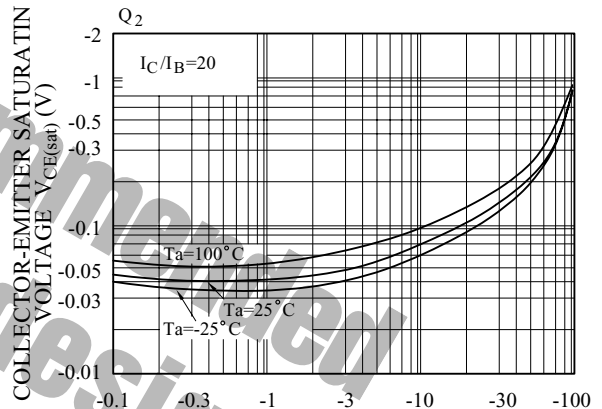
COLLECTOR CURRENT I_C (mA)

COLLECTOR CURRENT I_C (mA)

$h_{FE} - I_C$



$V_{CE(sat)} - I_C$



COLLECTOR CURRENT I_C (mA)

COLLECTOR CURRENT I_C (mA)