

FOR MUTING AND SWITCHING APPLICATION.

FEATURES

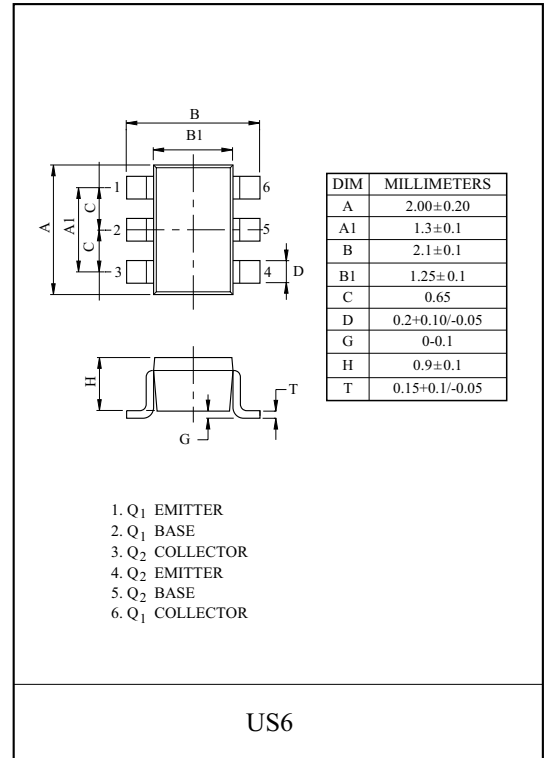
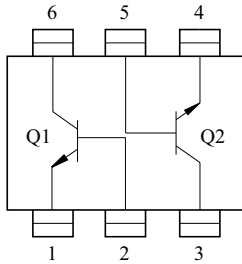
- High Emitter-Base Voltage : $V_{EBO}=25V(\text{Min.})$
- High Reverse h_{FE}
: Reverse $h_{FE}=150(\text{Typ.}) (V_{CE}=-2V, I_C=-4mA)$
- Low on Resistance : $R_{ON}=1 \Omega (\text{Typ.}), (I_B=5mA)$

MAXIMUM RATING ($T_a=25^\circ C$)

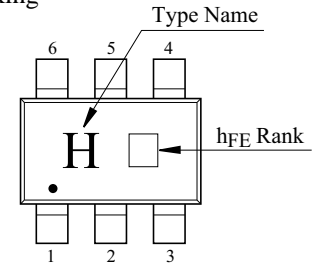
CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	50	V
Collector-Emitter Voltage	V_{CEO}	20	V
Emitter-Base Voltage	V_{EBO}	25	V
Collector Current	I_C	300	mA
Base Current	I_B	60	mA
Collector Power Dissipation	P_C^*	200	mW
Junction Temperature	T_j	150	$^\circ C$
Storage Temperature Range	T_{stg}	-55 ~ 150	$^\circ C$

* Total Rating

EQUIVALENT CIRCUIT (TOP VIEW)



Marking



ELECTRICAL CHARACTERISTICS ($T_a=25^\circ C$)

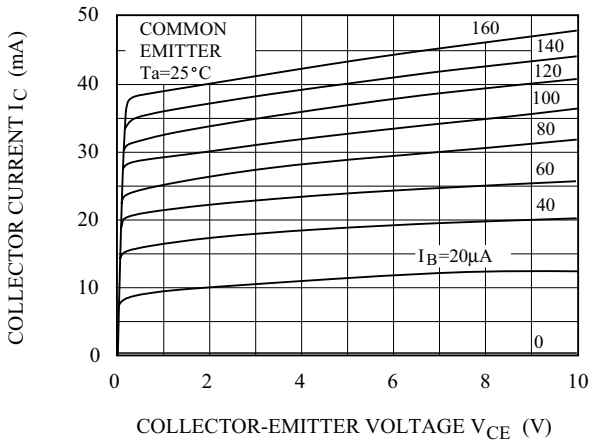
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	I_{CBO}	$V_{CB}=50V, I_E=0$	-	-	0.1	μA
Emitter Cut-off Current	I_{EBO}	$V_{EB}=25V, I_C=0$	-	-	0.1	μA
DC Current Gain	h_{FE}	$V_{CE}=2V, I_C=4mA$	350	-	1200	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=30mA, I_B=3mA$	-	0.042	0.3	V
Base-Emitter Voltage	V_{BE}	$V_{CE}=2V, I_C=4mA$	-	0.61	-	V
Transition Frequency	f_T	$V_{CE}=6V, I_C=4mA$	-	30	-	MHz
Collector Output Capacitance	C_{ob}	$V_{CB}=10V, I_E=0, f=1MHz$	-	4.8	7	pF
Switching Time	Turn-on Time	t_{on}	-	160	-	nS
	Storage Time	t_{stg}	-	500	-	
	Fall Time	t_f	-	130	-	

Note : h_{FE} Classification B: 350 ~ 1200

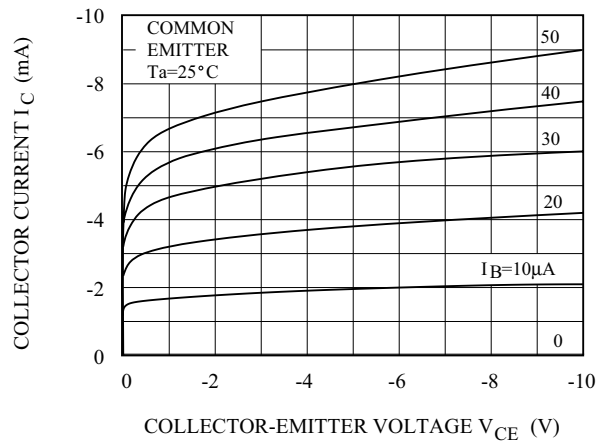
KTC814U

(Q₁, Q₂ COMMON)

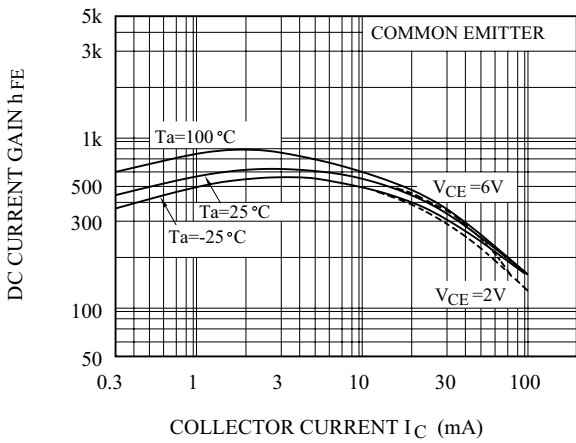
$I_C - V_{CE}$



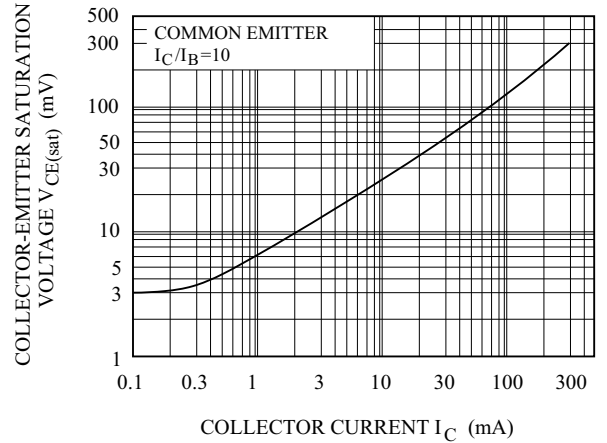
$I_C - V_{CE}$ (REVERSE REGION)



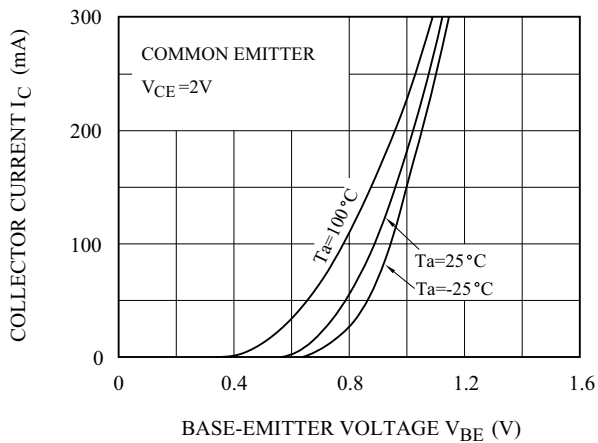
$h_{FE} - I_C$



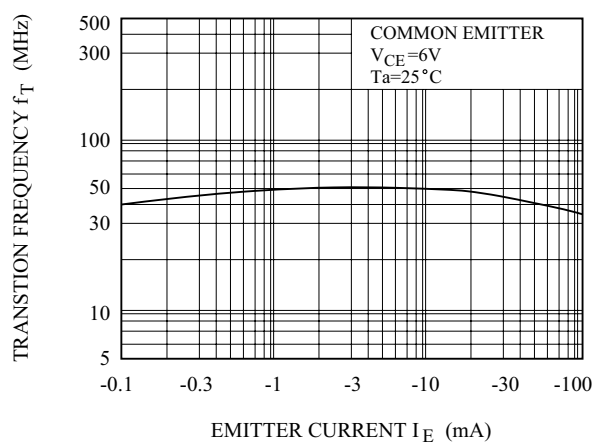
$V_{CE(sat)} - I_C$



$I_C - V_{BE}$

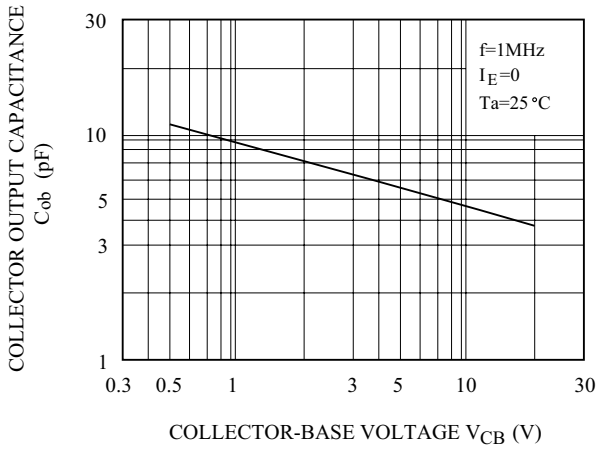


$f_T - I_E$

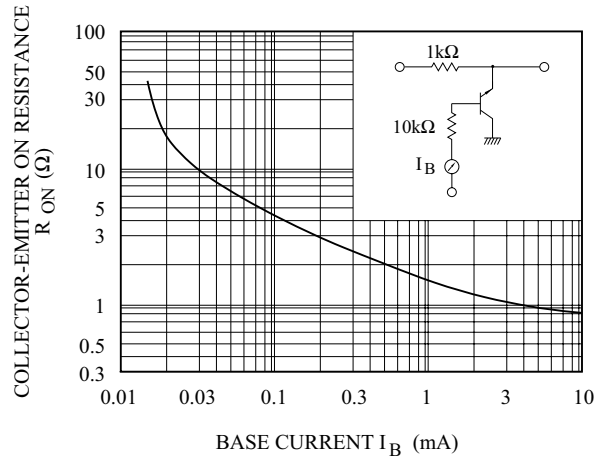


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$C_{ob} - V_{CB}$



$R_{ON} - I_B$



$P_c - T_a$

