

LOW NOISE AMPLIFIER APPLICATION.

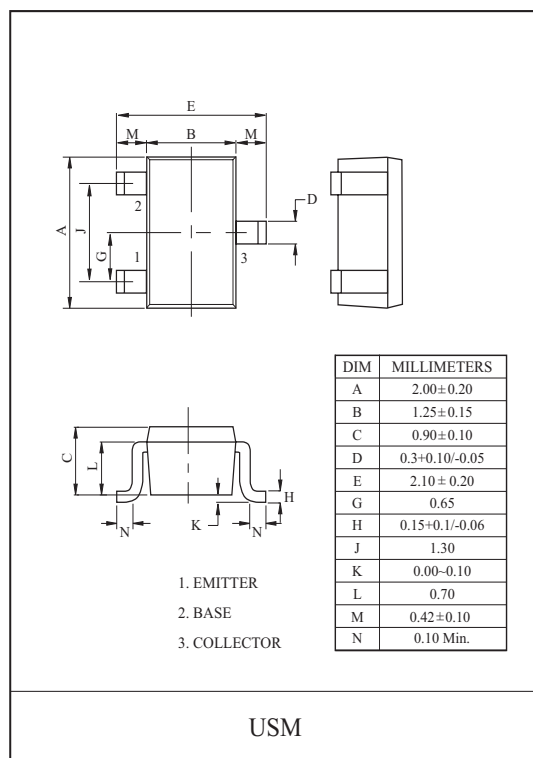
### FEATURE

- High  $h_{FE}$  :  $h_{FE}=600 \sim 3600$ .
- Noise Figure : 0.5dB(Typ.) at  $f=100kHz$ .
- Suffix U : Qualified to AEC-Q101.  
ex) KTC4666-B-RTK/PU

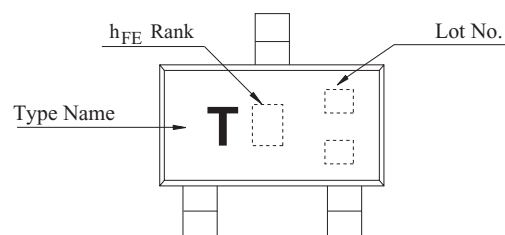
### MAXIMUM RATING (Ta=25 °C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	$V_{CBO}$	60	V
Collector-Emitter Voltage	$V_{CEO}$	50	V
Emitter-Base Voltage	$V_{EBO}$	8	V
Collector Current	$I_C$	150	mA
Base Current	$I_B$	30	mA
Collector Power Dissipation	$P_C$	200	mW
Junction Temperature	$T_j$	150	
Storage Temperature Range	$T_{stg}$	-55 ~ 150	

\* Package mounted on 99.5% alumina 10mm × 8mm × 0.6mm



### Marking

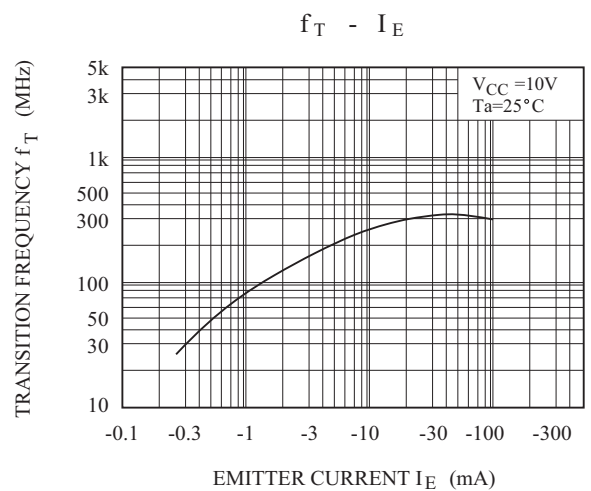
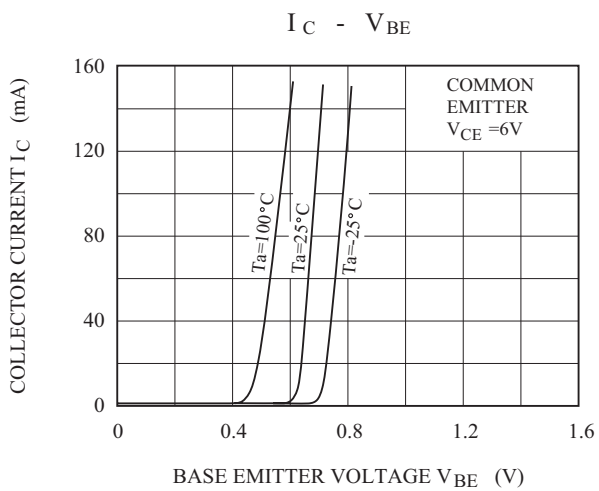
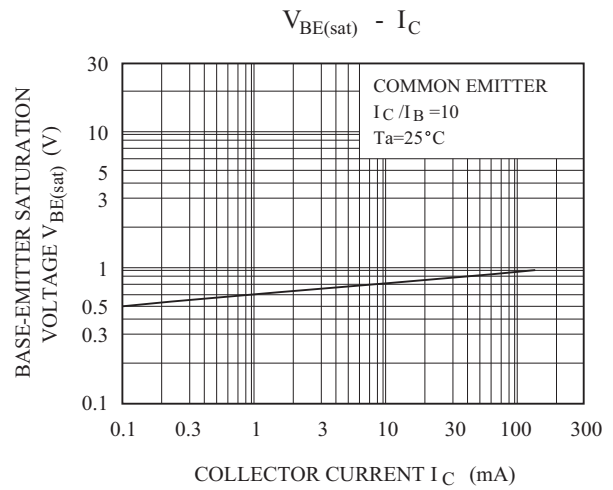
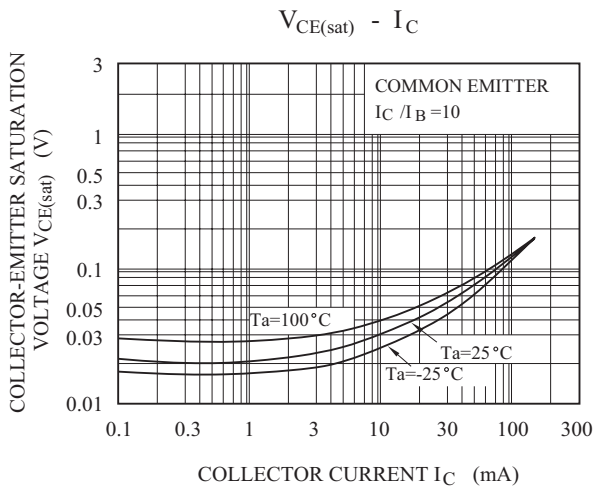
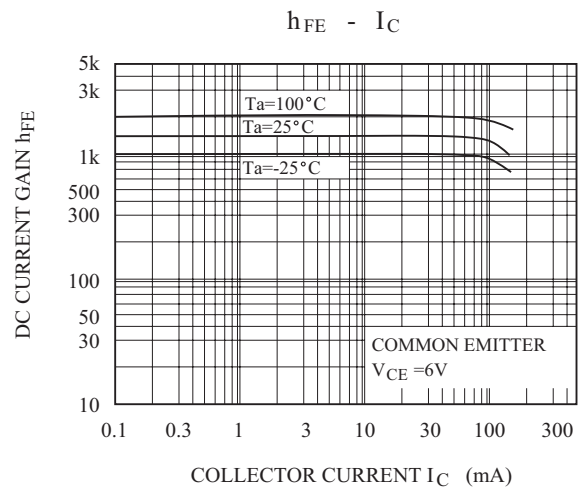
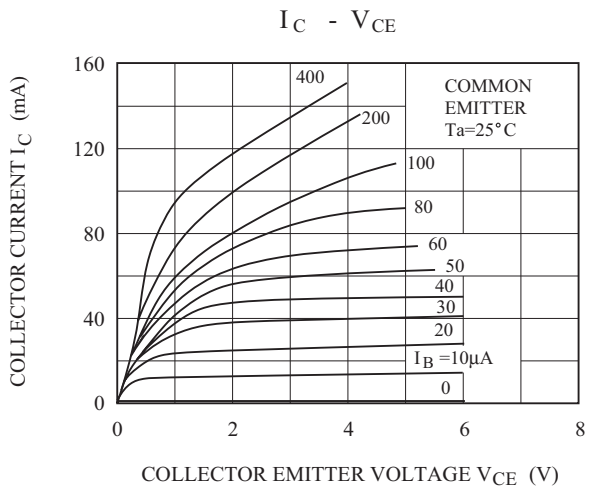


### ELECTRICAL CHARACTERISTICS (Ta=25 °C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	$I_{CBO}$	$V_{CB}=50V, I_E=0$	-	-	0.1	$\mu A$
Emitter Cut-off Current	$I_{EBO}$	$V_{EB}=8V, I_C=0$	-	-	0.1	$\mu A$
DC Current Gain	$h_{FE}$ (1)(Note)	$V_{CE}=6V, I_C=2mA$	600	-	3600	
	$h_{FE}$ (2)	$V_{CE}=5V, I_C=1mA$	500	-	3600	
	$h_{FE}$ (3)	$V_{CE}=10V, I_C=2mA$	600	-	-	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$ (1)	$I_C=10mA, I_B=1mA$	-	0.05	0.15	V
	$V_{CE(sat)}$ (2)	$I_C=50mA, I_B=5mA$	-	0.07	0.2	V
	$V_{CE(sat)}$ (3)	$I_C=100mA, I_B=10mA$	-	0.12	0.25	V
Transition Frequency	$f_T$	$V_{CE}=10V, I_C=10mA$	100	250	-	MHz
Collector Output Capacitance	$C_{ob}$	$V_{CB}=10V, I_E=0, f=1MHz$	-	3.5	-	pF
Noise Figure	NF (1)	$V_{CE}=6V, I_C=0.1mA,$ $f=100kHz, R_g=10k$	-	0.5	-	dB
	NF (2)	$V_{CE}=6V, I_C=0.1mA,$ $f=1kHz, R_g=10k$	-	0.3	-	

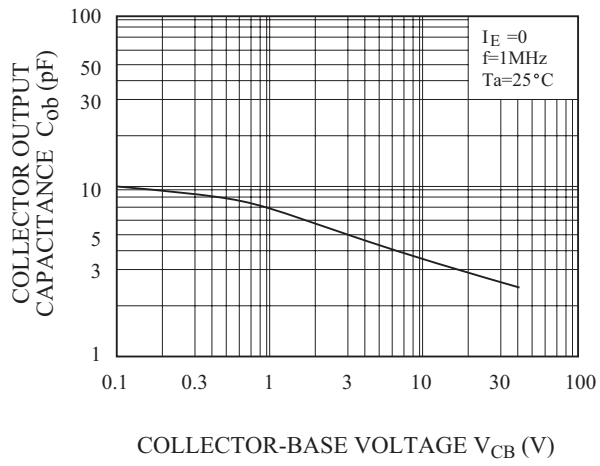
Note :  $h_{FE}$  Classification A:600 1800 , B:1200 3600

# KTC4666



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$C_{ob} - V_{CB}$



$P_C - T_a$

