

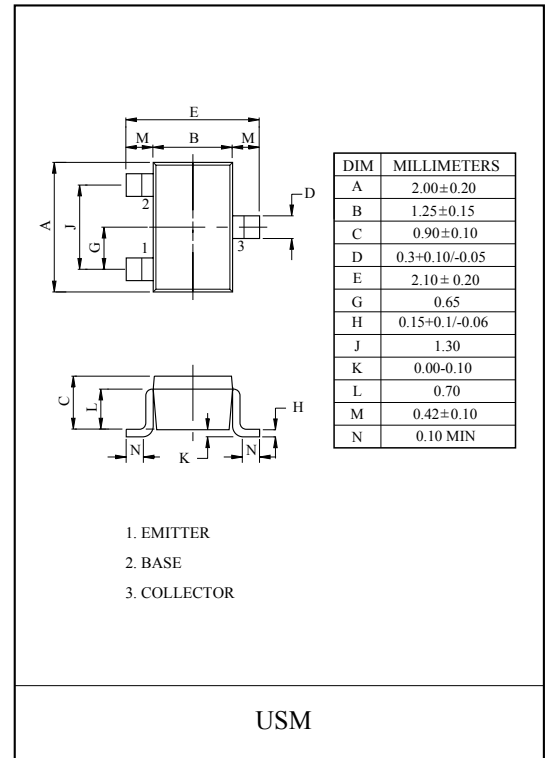
LOW NOISE AMPLIFIER APPLICATION.

### FEATURE

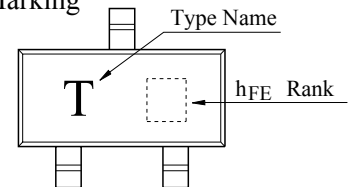
- High  $h_{FE}$  :  $h_{FE}=600 \sim 3600$ .
- Noise Figure : 0.5dB(Typ.) at  $f=100\text{Hz}$ .

### 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	$V_{EBO}$	5	V
Collector Current	$I_C$	150	mA
Base Current	$I_B$	30	mA
Collector Power Dissipation	$P_C$	100	mW
Junction Temperature	$T_j$	150	°C
Storage Temperature Range	$T_{stg}$	-55 ~ 150	°C



### Marking



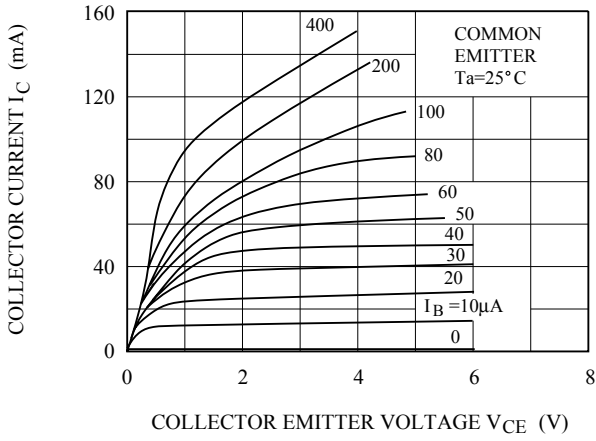
### ELECTRICAL CHARACTERISTICS (Ta=25°C)

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

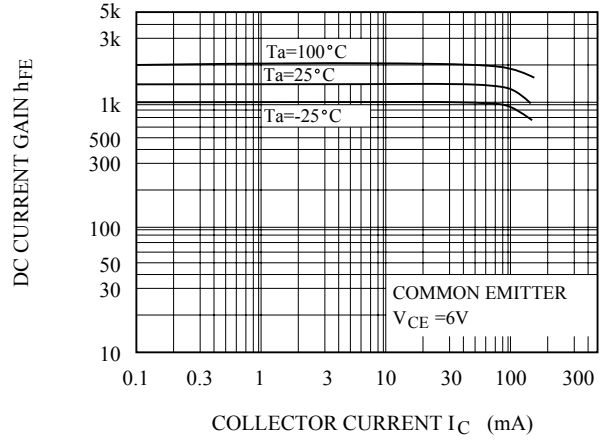
Note :  $h_{FE}$  Classification A:600 ~ 1800 , B:1200 ~ 3600

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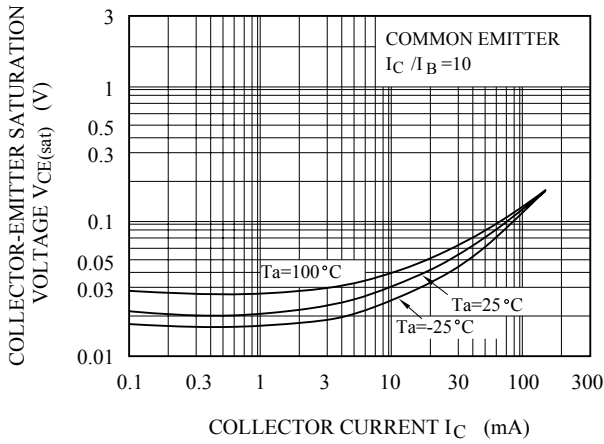
$I_C - V_{CE}$



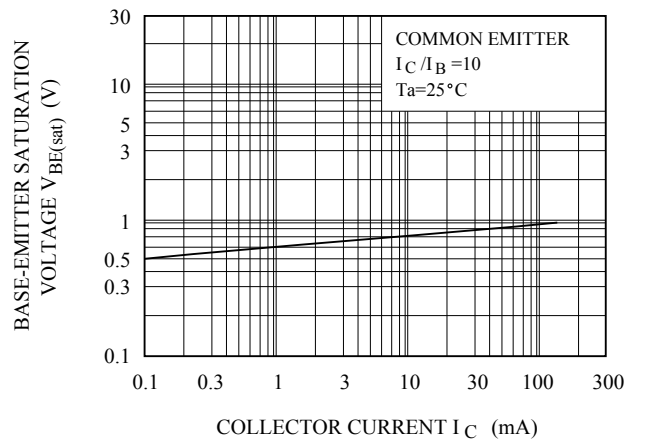
$h_{FE} - I_C$



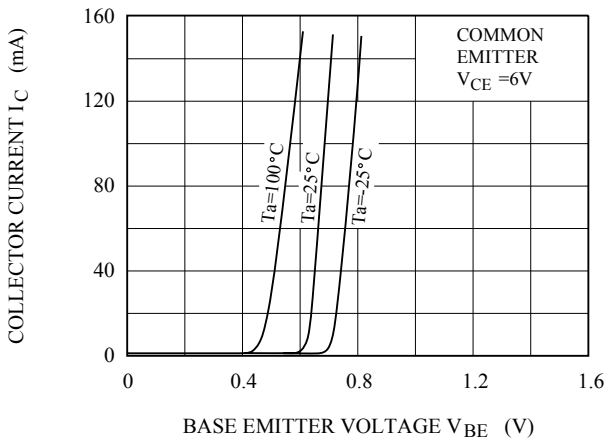
$V_{CE(sat)} - I_C$



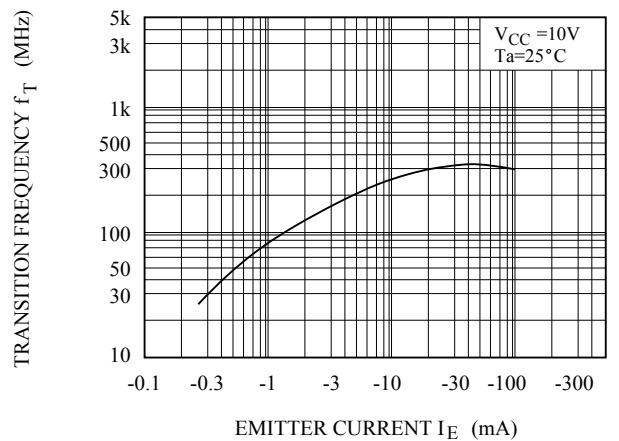
$V_{BE(sat)} - I_C$



$I_C - V_{BE}$



$f_T - I_E$



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