

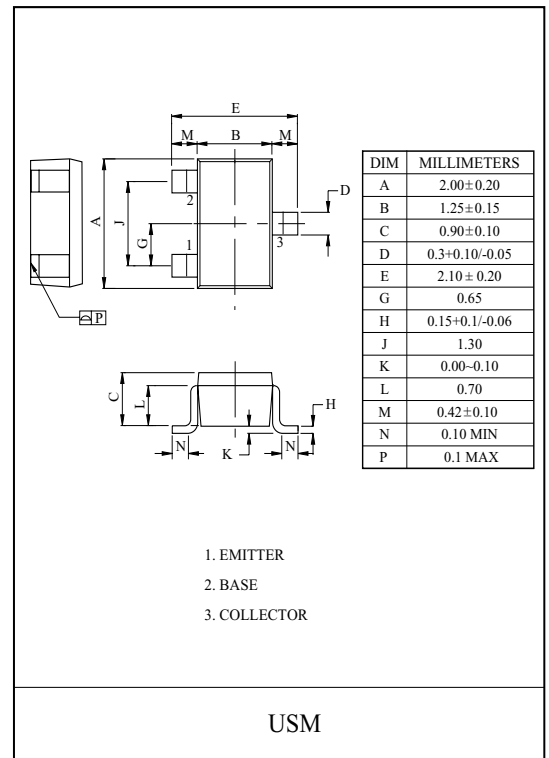
HIGH FREQUENCY APPLICATION.
VHF BAND AMPLIFIER APPLICATION.

FEATURES

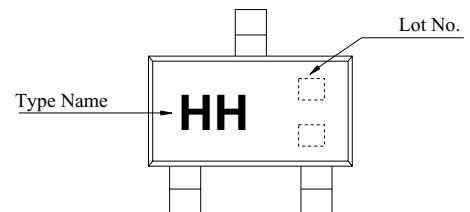
- Good Linearity of f_T .

MAXIMUM RATING (Ta=25 °C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Collector-Base Voltage	V_{CBO}	30	V
Collector-Emitter Voltage	V_{CEO}	25	V
Emitter-Base Voltage	V_{EBO}	4	V
Collector Current	I_C	50	mA
Base Current	I_B	25	mA
Collector Power Dissipation	P_C	100	mW
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	



Marking

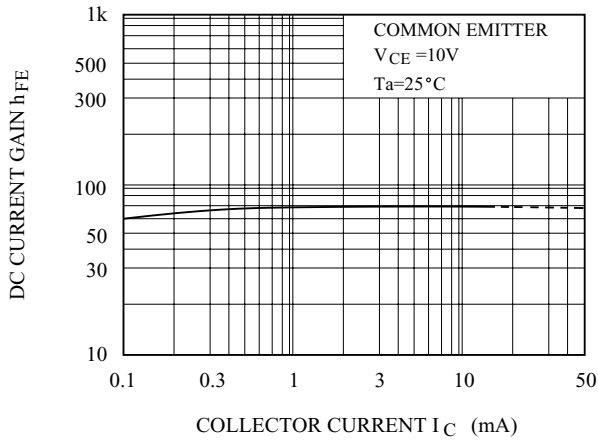


ELECTRICAL CHARACTERISTICS (Ta=25 °C)

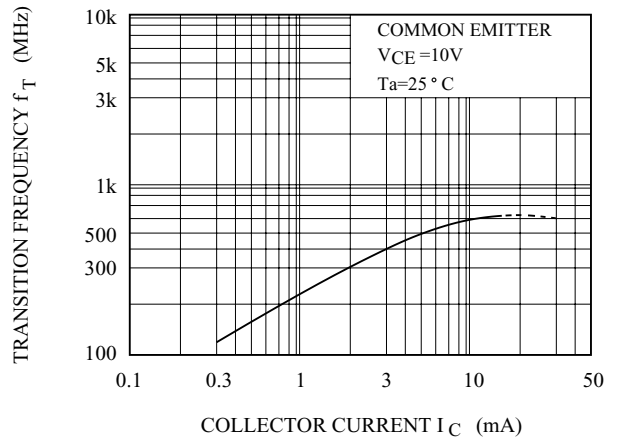
CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current		I_{CBO}	$V_{CB}=30V, I_E=0$	-	-	0.1	μA
Emitter Cut-off Current		I_{EBO}	$V_{EB}=3V, I_C=0$	-	-	0.1	μA
Collector-Emitter Breakdown Voltage		$V_{(BR)CEO}$	$I_C=10mA, I_B=0$	25	-	-	V
DC Current Gain		h_{FE}	$V_{CE}=10V, I_C=10mA$	20	70	200	
Saturation Voltage	Collector-Emitter	$V_{CE(sat)}$	$I_C=15mA, I_B=1.5mA$	-	-	0.2	V
	Base-Emitter	$V_{BE(sat)}$		-	-	1.5	
Collector Output Capacitance		C_{ob}	$V_{CB}=10V, I_E=0, f=1MHz$	-	1.1	1.6	pF
Collector-Base Time Constant		$C_C \cdot r_{bb'}$	$V_{CB}=10V, I_E=-1mA, f=30MHz$	-	-	25	pS
Transition Frequency		f_T	$V_{CE}=10V, I_C=10mA$	250	600	-	MHz

KTC4081

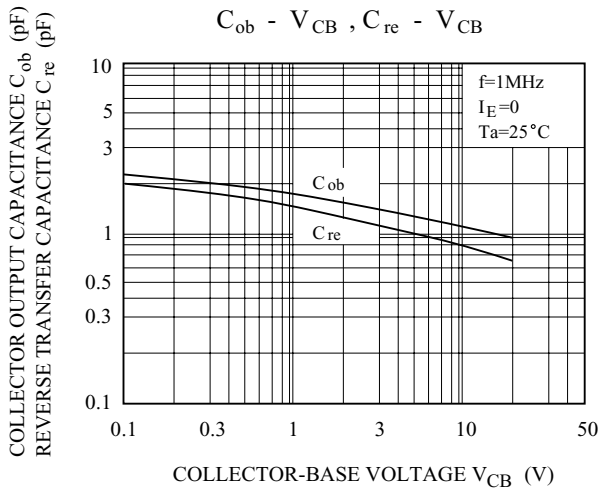
$h_{FE} - I_C$



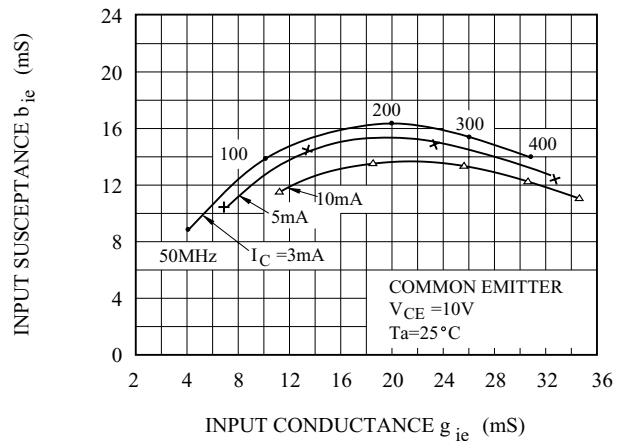
$f_T - I_C$



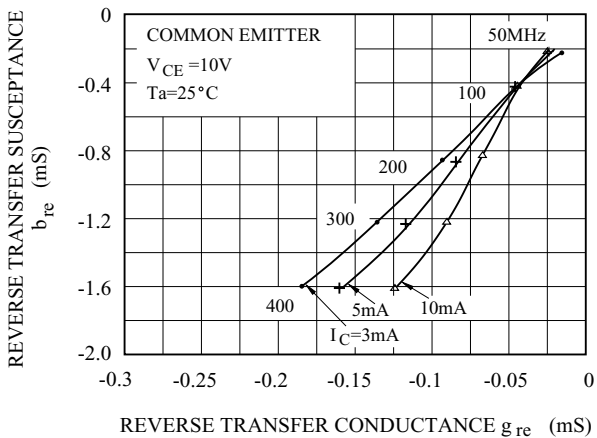
$C_{ob} - V_{CB}, C_{re} - V_{CB}$



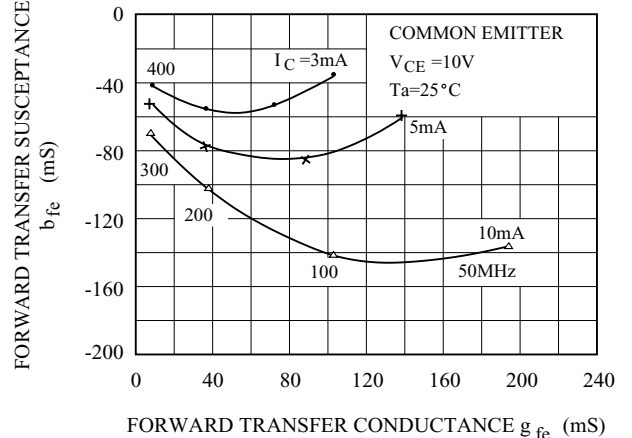
$y_{ie} - f$



$y_{re} - f$



$y_{fe} - f$



KTC4081

