

**SEMICONDUCTOR
TECHNICAL DATA**

KTC3881

EPITAXIAL PLANAR NPN TRANSISTOR

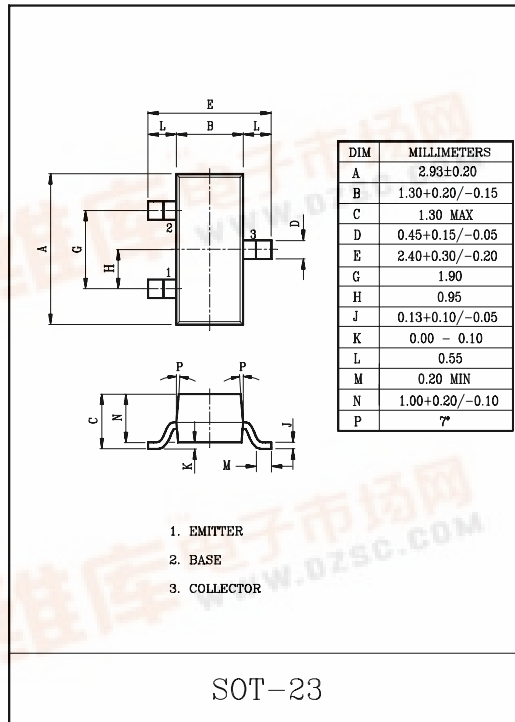
HIGH FREQUENCY APPLICATION,
VHF BAND AMPLIFIER APPLICATION.

FEATURES

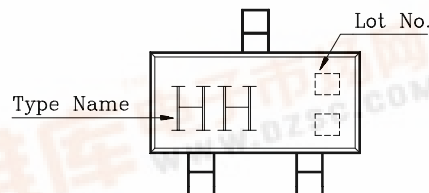
- Good Linerarity of f_T .

MAXIMUM RATINGS ($T_a=25^\circ\text{C}$)

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	150	mW
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55 ~ 150	$^\circ\text{C}$



Marking

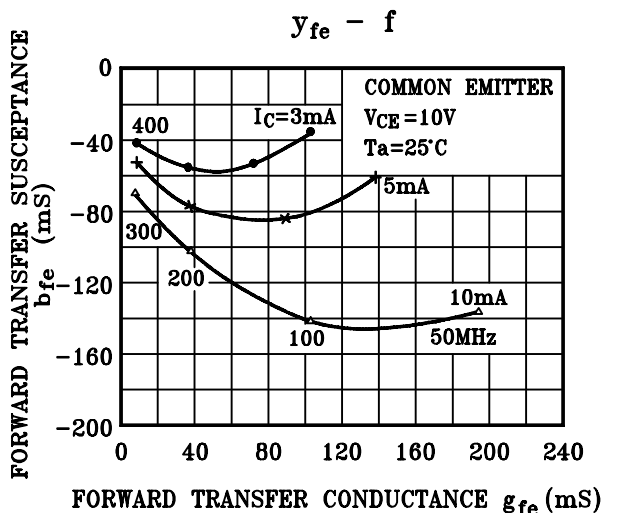
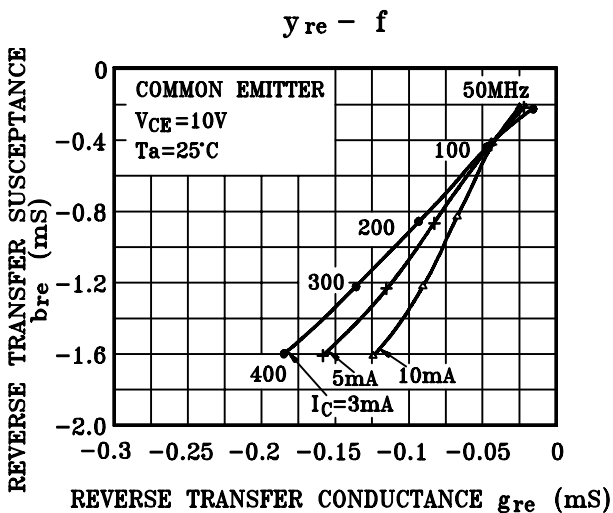
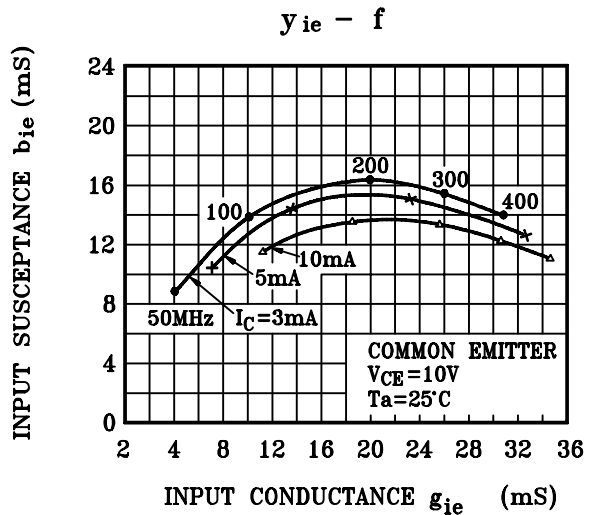
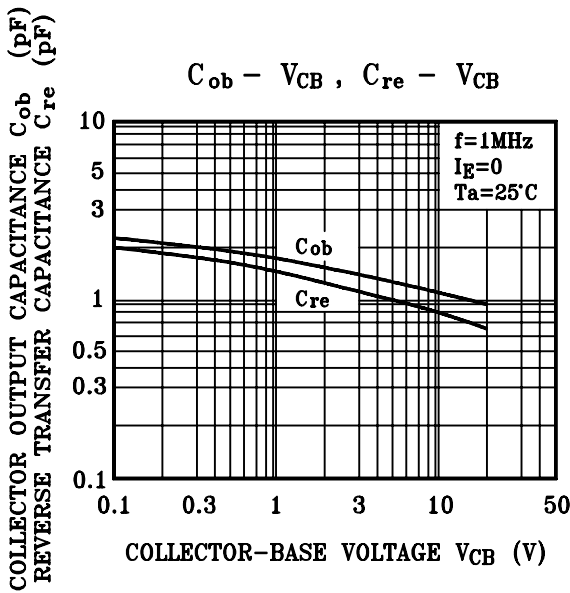
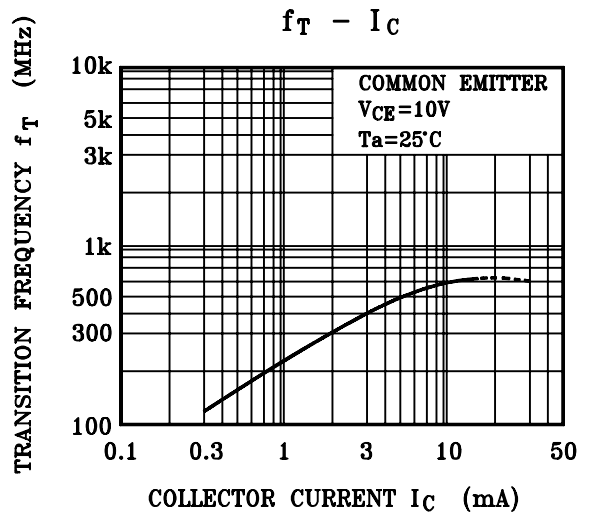
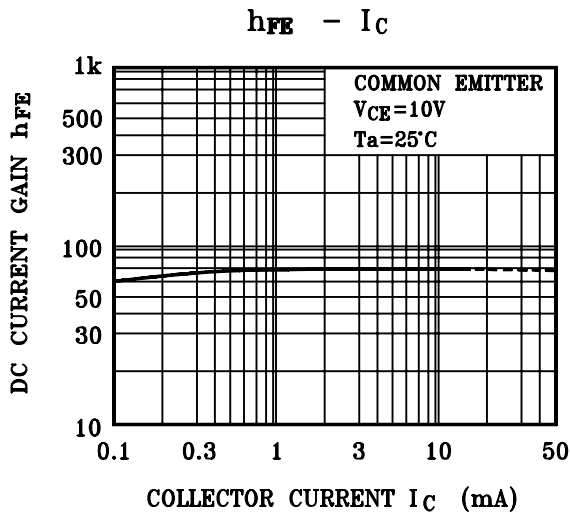


ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$)

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



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