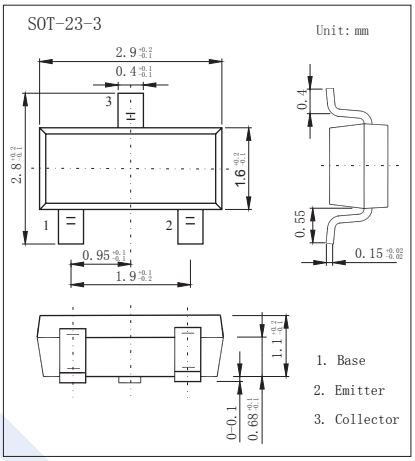
NPN Transistors

KTC3882



■ Features

- Collector Current Capability I_C=50mA
- Collector Emitter Voltage V_{CEO}=15V
- High frequency application .TV Tuner,VHF Oscillator application

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CBO}	30	V
Collector - Emitter Voltage	V_{CEO}	15	
Emitter - Base Voltage	V_{EBO}	3	
Collector Current - Continuous	I_C	50	mA
Base Current	I_B	25	
Collector Power Dissipation	P_C	150	mW
Junction Temperature	T_J	150	℃
Storage Temperature Range	T_{stg}	-55 to 150	

■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V_{CBO}	I_C= 100 μA, I_E= 0	30			V
Collector- emitter breakdown voltage	V_{CEO}	I_C= 1 mA, I_B= 0	15			
Emitter - base breakdown voltage	V_{EBO}	I_E= 100 μ A, I_C= 0	3			
Collector-base cut-off current	I_{CBO}	V_{CB}= 15 V , I_E= 0			0.1	uA
Emitter cut-off current	I_{EBO}	V_{EB}= 3V , I_C=0			0.1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=50 mA, I_B=5 mA			0.5	V
Base - emitter saturation voltage	$V_{BE(sat)}$	I_C= 50 mA, I_B= 5 mA			1.2	
DC current gain	h_{FE}	V_{CE}= 3V, I_C= 8mA	40		200	
Collector output capacitance	C_{ob}	V_{CB}= 10V, I_E= 0,f=1MHz			1.3	pF
Collector-base time constant	C_c $r_{bb'}$	V_{CB}= 10V, I_C= 8mA,f=30MHz			12	pS
Transition frequency	f_T	V_{CE}= 10V, I_C= 8mA	650	1100		MHz

■ Marking

Marking	HF

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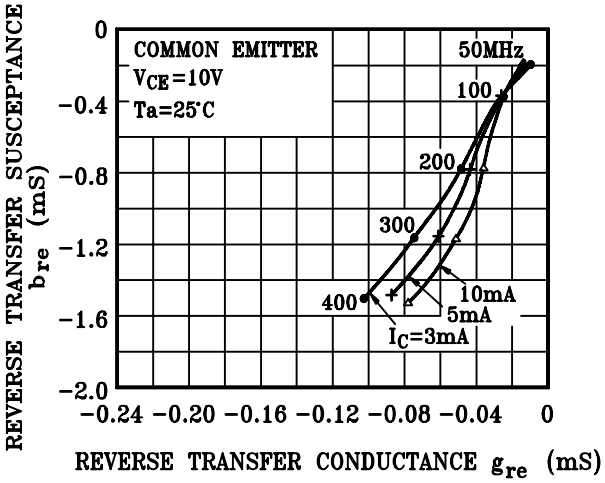
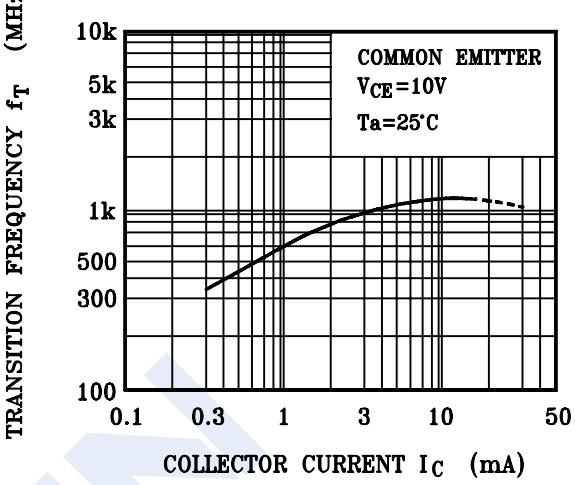
■ Typical Characterisitics

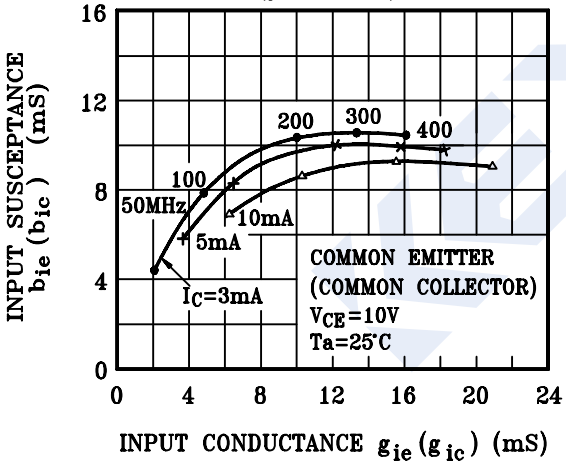
y_{re} – f



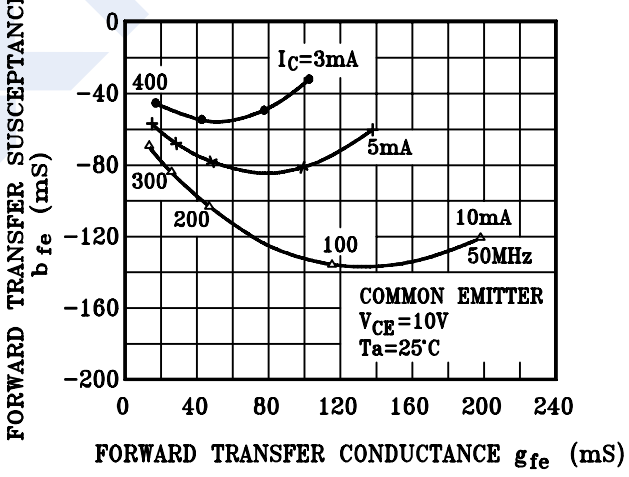
f_T – I_C



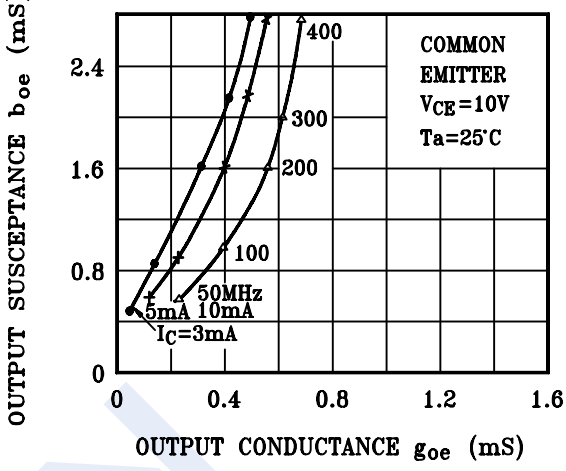
y_{ie} – f (y_{ic} – f)



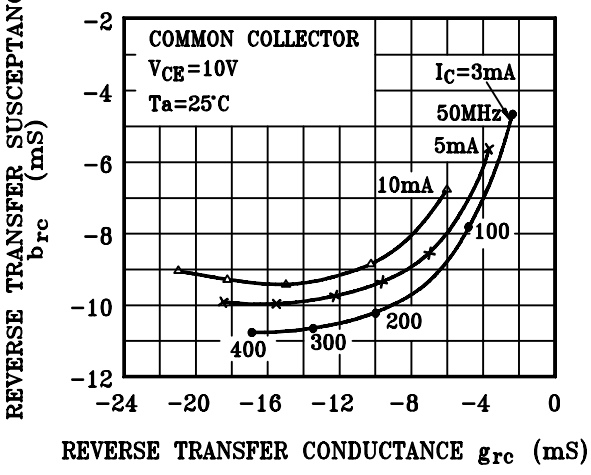
y_{fe} – f



y_{oe} – f



y_{rc} – f



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■ Typical Characterisitics