



SEMICONDUCTOR

MMBTH10LT1

Shandong Yiguang Electronic Joint stock Co., Ltd

TECHNICAL DATA

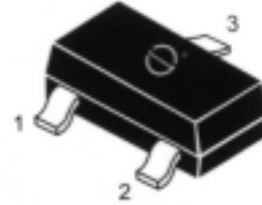
NPN EPITAXIAL SILICON TRANSISTOR

VHF/UHF Transistors

ABSOLUTE MAXIMUM RATINGS at Ta=25

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	Vcbo	30	V
Collector-Emitter Voltage	Vceo	25	V
Emitter-Base Voltage	Vebo	3	V
Collector Dissipation Ta=25 *	P _D	225	mW
Junction Temperature	T _j	150	
Storage Temperature	T _{stg}	-55-150	

Package:SOT-23



PIN:	1	2	3
STYLE			
NO.1	B	E	C

ELECTRICAL CHARACTERISTICS at Ta=25

Characteristic	Symbol	Min	Typ	Max	Unit	Test Conditions
Collector-Base Breakdown Voltage	BVcbo	30			V	I _c =100uA I _e =0
Collector-Emitter Breakdown Voltage#	BVceo	25			V	I _c = 1mA I _b =0
Emitter-Base Breakdown Voltage	BVebo	3			V	I _e = 10uA I _c =0
Collector-Base Cutoff Current	Icbo			100	nA	V _{cb} = 25V I _e =0
DC Current Gain	H _{fe}	60				V _{ce} = 10V I _c = 4mA
Collector-Emitter Saturation Voltage	V _{ce(sat)}			0.5	V	I _c = 4mA I _b = 0.4mA
Current Gain-Bandwidth Product	f _T	650			MHz	V _{ce} = 10V I _c = 4mA

* Total Device Dissipation : FR=1x0.75x0.062in Board,Derate 25 .

Pulse Test : Pulse Width 300uS,Duty cycle 2%

DEVICE MARKING:

MMBTH10LT1=3EM



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TYPICAL CHARACTERISTICS

COMMON-BASE y PARAMETERS versus FREQUENCY

($V_{CB} = 10$ Vdc, $I_C = 4.0$ mA dc, $T_A = 25^\circ\text{C}$)

y_{ib} , INPUT ADMITTANCE

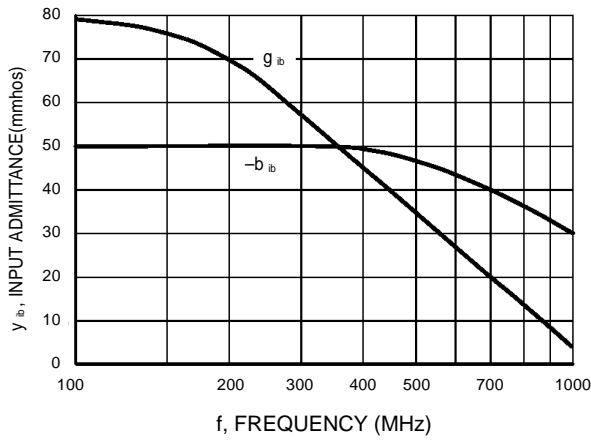


Figure 1. Rectangular Form

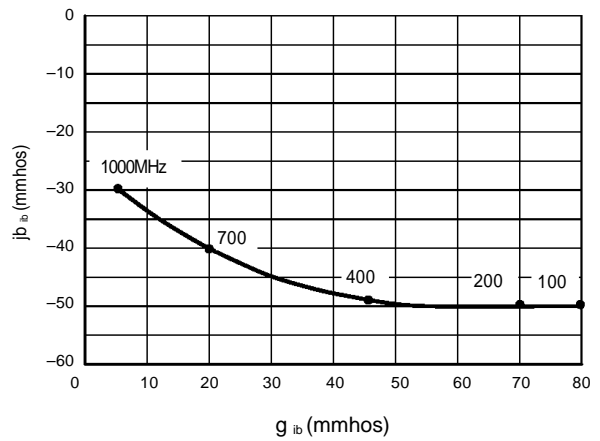


Figure 2. Polar Form

y_{fb} , FORWARD TRANSFER ADMITTANCE

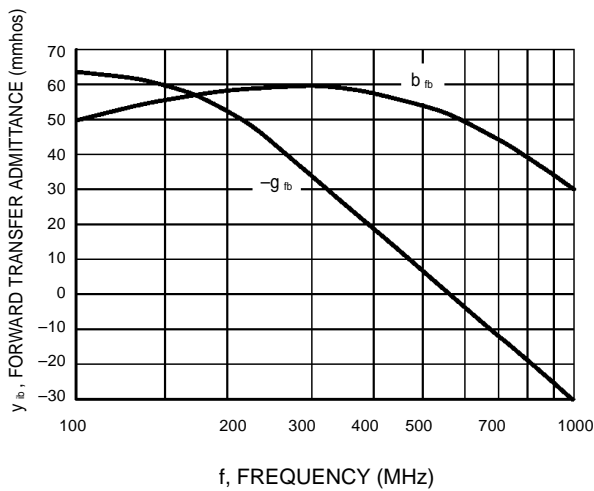


Figure 3. Rectangular Form

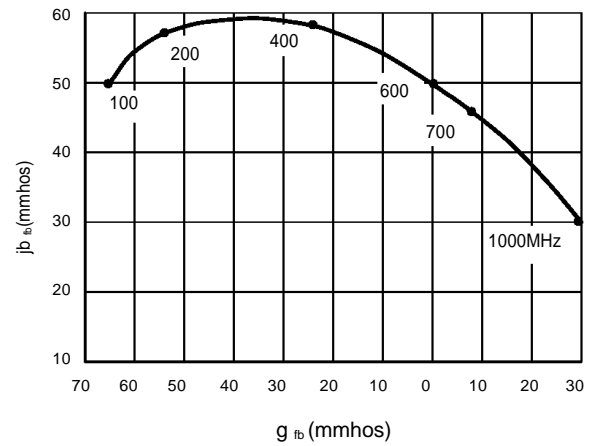


Figure 4. Polar Form



MMBTH10LT1

TYPICAL CHARACTERISTICS

COMMON-BASE y PARAMETERS versus FREQUENCY

($V_{CB} = 10 \text{ Vdc}$, $I_C = 4.0 \text{ mAdc}$, $T_A = 25^\circ\text{C}$)

y_{rb} , REVERSE TRANSFER ADMITTANCE

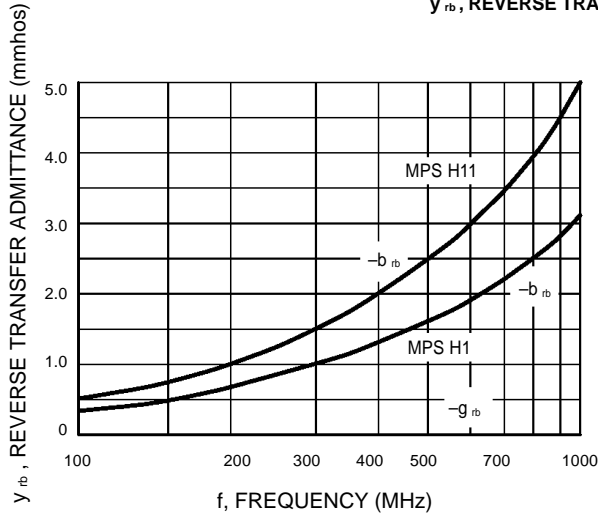


Figure 5. Rectangular Form

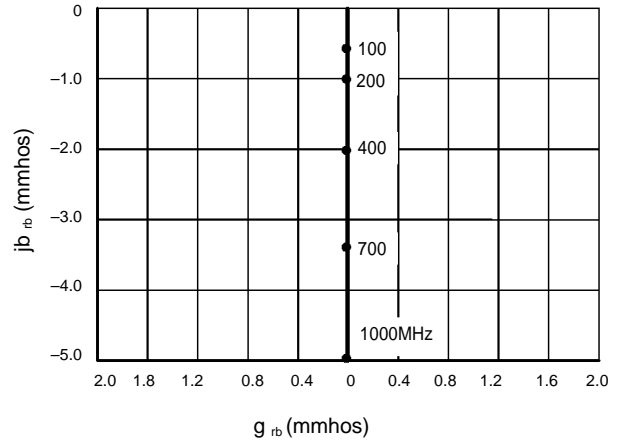


Figure 6. Polar Form

y_{ob} , OUTPUT ADMITTANCE

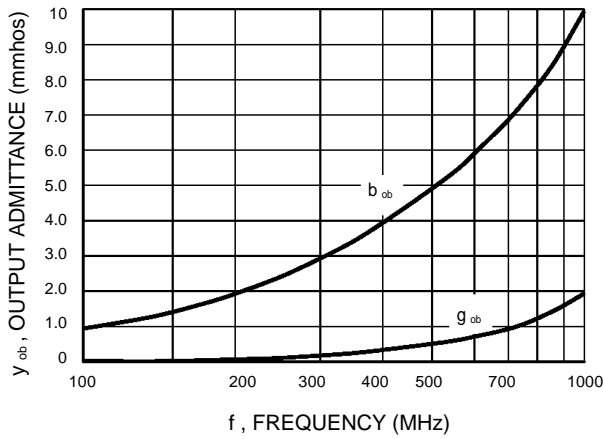


Figure 7. Rectangular Form

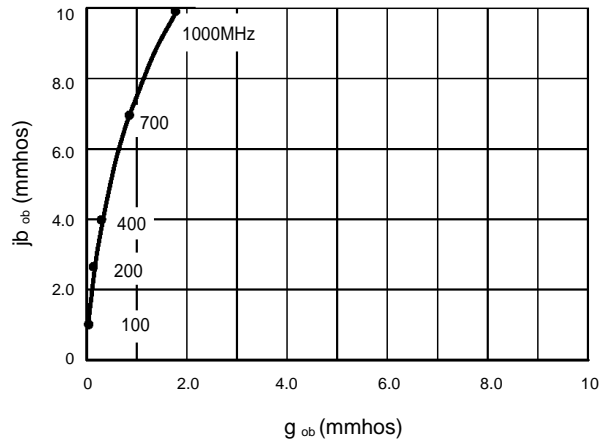


Figure 8. Polar Form