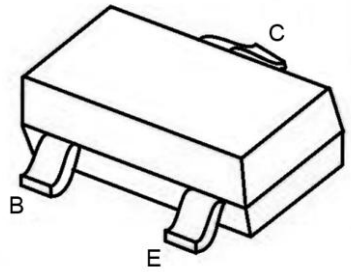
MMBT2907AT Transistor(PNP)

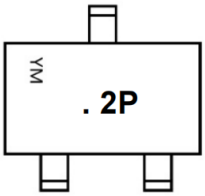
SOT-523



Feature

- Epitaxial Planar Die Construction
- Ideal for Medium Power Amplification and Switching

Marking:



" 2P " = Part No.

" • " = HAF (Halogen and Antimony Free)

" YM " = Date Code Marking

" Y " = Year

" M " = Month

MAXIMUM RATINGS (T_A=25℃ unless otherwise noted)

Parameter	Symbol	Value	Unit
Collector-Base Voltage	V_{CBO}	-60	V
Collector-Emitter Voltage	V_{CEO}	-60	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current -Continuous	I_C	-0.6	A
Power Dissipation	P_d	0.2	W
Junction Temperature	T_J	150	℃
Storage Temperature	T_{STG}	-55~ +150	℃
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	625	℃/ W

ELECTRICAL CHARACTERISTICS(T_A=25℃ unless otherwise noted)

Parameter	Symbol	Test Condition	Min	Max	Unit
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	I_C=-10μA ,I_E=0	-60		V
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	I_C=-1mA , I_B=0	-60		V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	I_E=-10μA,I_C=0	-5		V
Collector Cut-Off Current	I_{CBO}	V_{CB}=-50V, I_E=0		-100	nA
Emitter Cut-Off Current	I_{EBO}	V_{CE}=-3V, I_C=0		-100	nA
Collector Cut-Off Current	I_{CES}	V_{CE}=-30V		-100	nA
DC Current Gain	h_{FE}	V_{CE}=-10V, I_C=-0.1mA	75		
		V_{CE}=-10V, I_C=-1mA	100		
		V_{CE}=-10V, I_C=-10mA	100	300	
		V_{CE}=-10V, I_C=-150mA	100		
		V_{CE}=-10V, I_C=-500mA	50		
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=-150mA, I_B= -15mA		-0.4	V
		I_C=-500mA, I_B= -50mA		-1.6	V
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	I_C=-150mA, I_B= -15mA		-1.3	V
		I_C=-500mA, I_B= -50mA		-2.6	V
Transition Frequency	f_T	V_{CE}= -20V, I_E=-50mA,f=100MHz	200		MHZ
Collector Output Capacitance	C_{ob}	V_{CB} =-10 V, f =1MHz		8	pF
Turn-on Time	t_{on}	V_{CC}=-30V, $V_{BE(OFF)}$=-1.5V, I_C =-150mA, I_{B1}=-15mA		50	ns
Delay Time	t_d			10	ns
Rise Time	t_r			40	ns
Turn-off Time	t_{off}	V_{CC}=-30V, I_C =-150mA, I_{B1}= I_{B2}= -15mA		100	ns
Storage Time	t_{stg}			80	ns
Fall Time	t_f			30	ns

Typical Characteristics

Fig. 1 Output Characteristics Curve

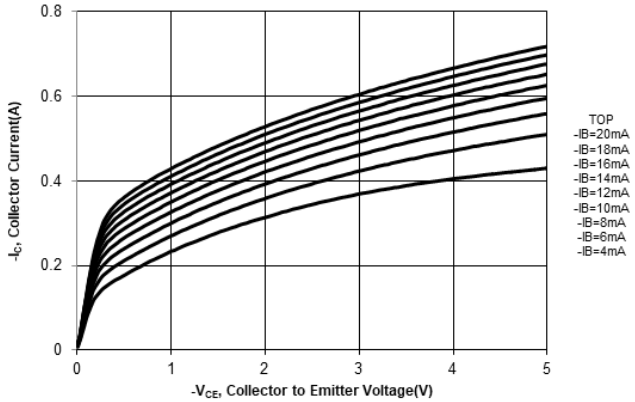


Fig. 2 Collector Current vs. V_{BE}

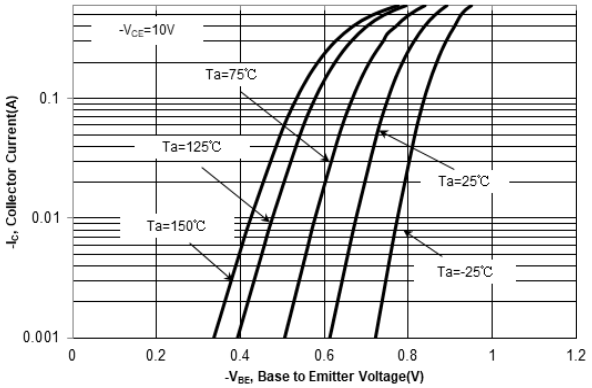


Fig 3. DC Current Gain vs. Collector Current

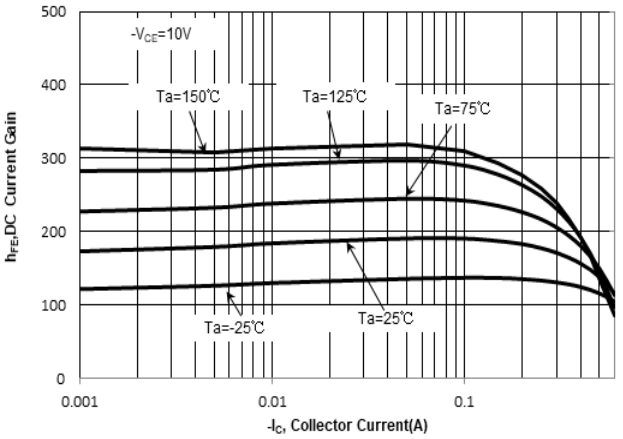


Fig 4. $V_{BE(sat)}$ vs. Collector Current

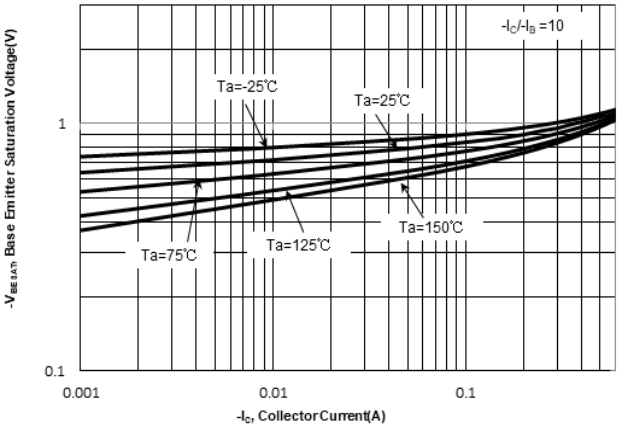


Fig 5. $V_{CE(sat)}$ vs. Collector Current

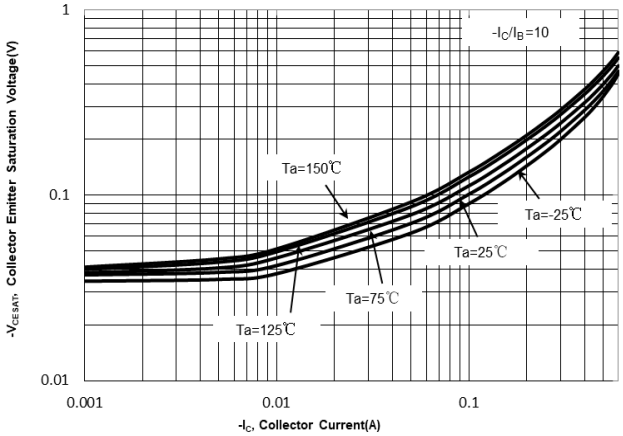
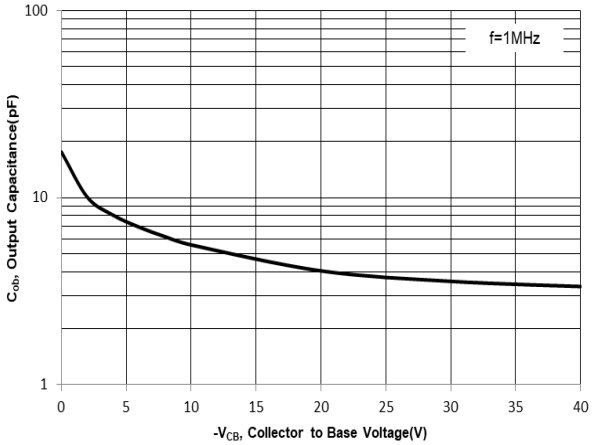
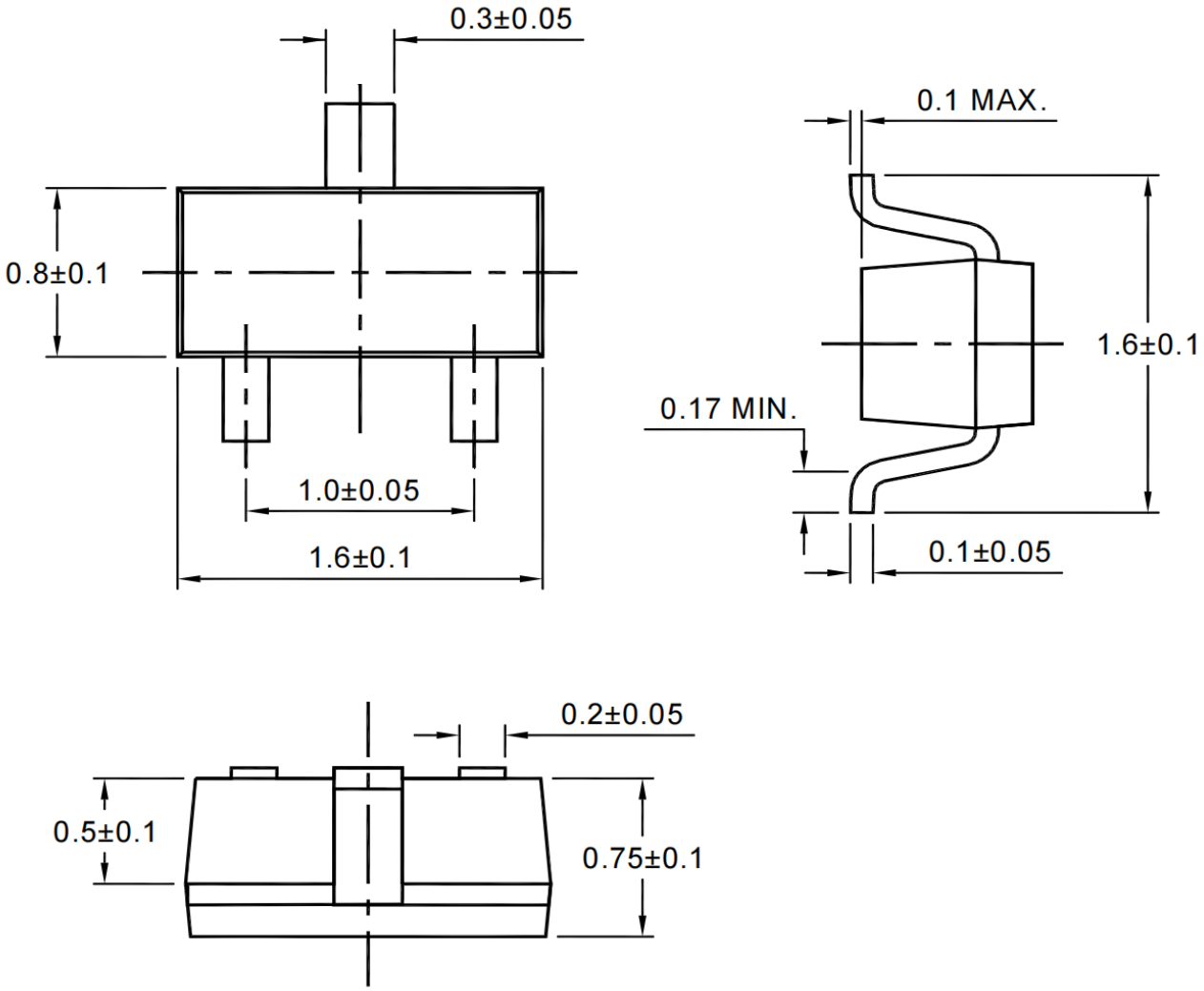


Fig 6. Capacitance



SOT-523 Package Information



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