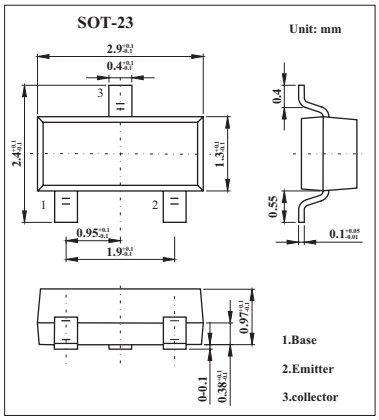
PNP Transistors

KMBT3906(MMBT3906)



■ Features

●Epitaxial planar die construction

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector- Base Voltage	V_{CBO}	-40	V
Collector - Emitter Voltage	V_{CEO}	-40	V
Emitter - Base Voltage	V_{EBO}	-5	V
Collector Current- Continuous	I_C	-0.2	A
Collector Dissipation	P_C	0.3	W
Junction and Storage Temperature	T_J, T_{stg}	-55 to 150	℃

■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector - base breakdown voltage	V_{CBO}	I_C= -100 μA， I_E=0	-40			V
Collector - emitter breakdown voltage	V_{CEO}	I_C= -1 mA， I_B=0	-40			V
Emitter- base breakdown voltage	V_{EBO}	I_E= -100 μA， I_C=0	-5			V
Collector cut-off current	I_{CBO}	V_{CB}= -40 V , I_E=0			-0.1	μA
Collector cut-off current	I_{CEO}	V_{CE}= -40 V , $V_{BE(off)}$=-3V			-50	nA
Emitter cut-off current	I_{EBO}	V_{EB}= -5V , I_C=0			-0.1	μA
DC current gain	h_{FE}	V_{CE}= -1V, I_C= -10mA	100		300	
		V_{CE}= -1V, I_C= -50mA	60			
Collector- emitter saturation voltage	$V_{CE(sat)}$	I_C=-50 mA, I_B= -5mA			-0.3	V
Base - emitter saturation voltage	$V_{BE(sat)}$	I_C=-50 mA, I_B= -5mA			-0.95	V
Delay time	t_d	V_{CC}=-3.0V,V_{BE}=0.5V			35	ns
Rise time	t_r	I_C=-10mA,I_{B1}=-1.0mA			35	
Storage time	t_s	V_{CC}=-3.0V,I_C=-10mA			225	ns
Fall time	t_f	I_{B1}=I_{B2}=-1.0mA			75	
Transition frequency	f_T	V_{CE}= -20V, I_C= -10mA, f=100MHz	250			MHz

■ Marking

Marking	2A

KMBT3906(MMBT3906)

■ Typical Characteristics

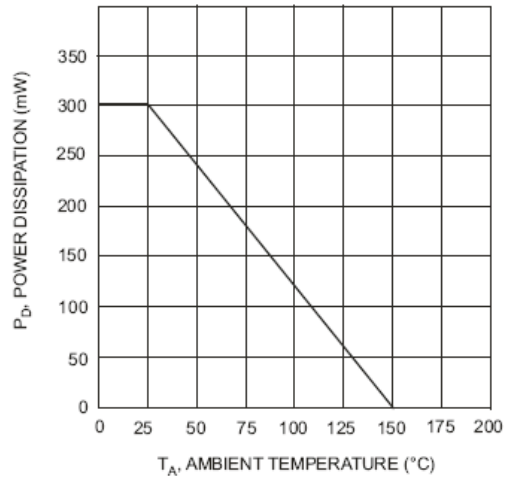


Fig.1 Max Power Dissipation vs Ambient Temperature

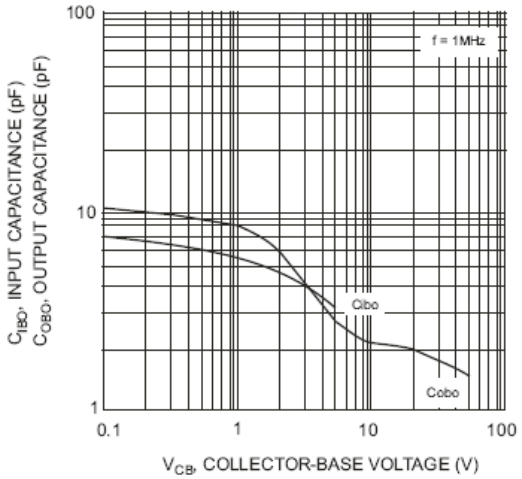


Fig.2 Input and Output Capacitance vs. Collector-Base Voltage

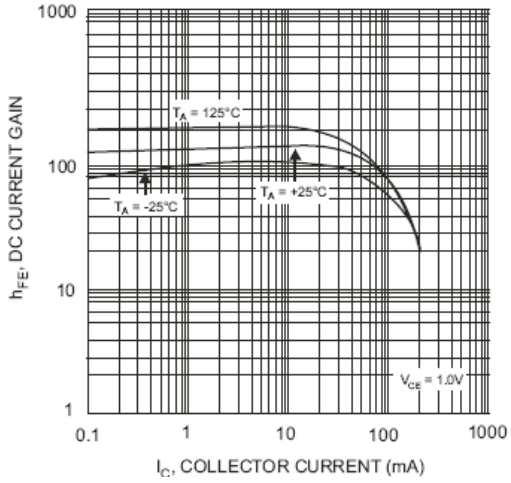


Fig.3 Typical DC Current Gain vs Collector Current

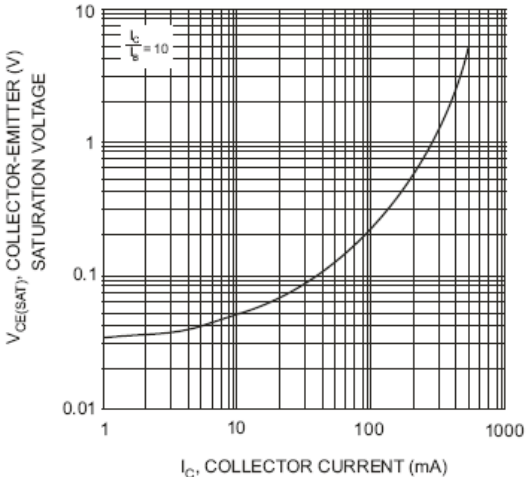


Fig.4 Typical Collector-Emitter Saturation Voltage vs. Collector Current

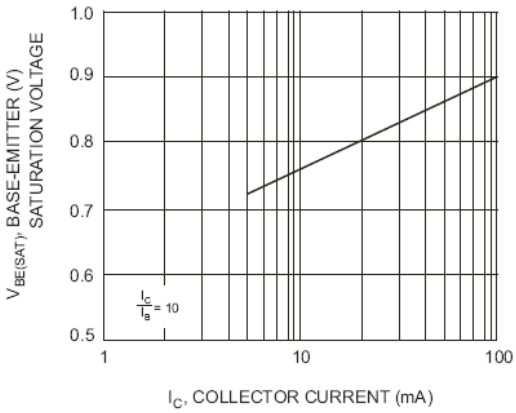


Fig.5 Typical Base-Emitter Saturation Voltage vs. Collector Current