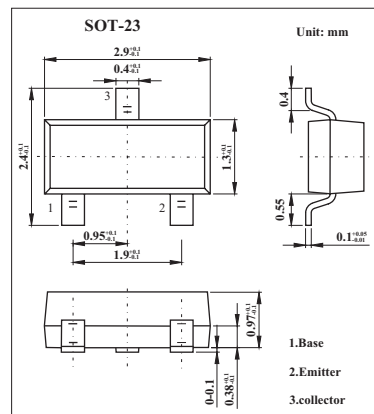


KMBT3906(MMBT3906)

■ Features

- Epitaxial planar die construction



■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Collector- Base Voltage	V _{CB0}	-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	°C

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector - base breakdown voltage	V _{CB0}	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	μ A
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	μ A
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
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KMBT3906(MMBT3906)

■ Typical Characteristics

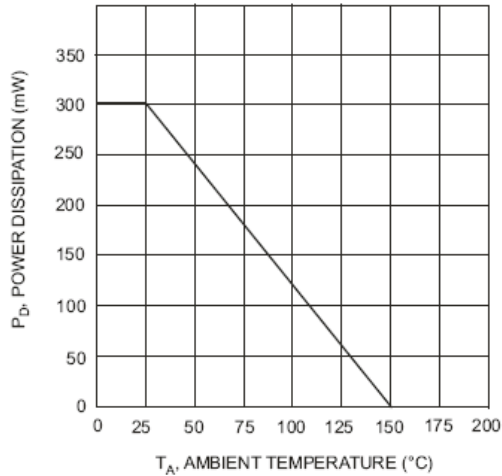


Fig.1 Max Power Dissipation vs Ambient Temperature

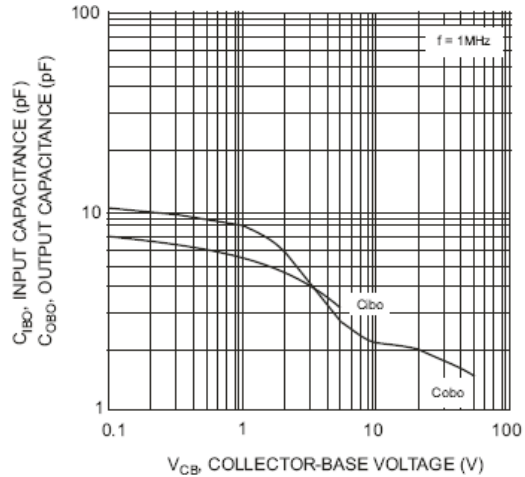


Fig.2 Input and Output Capacitance vs. Collector-Base Voltage

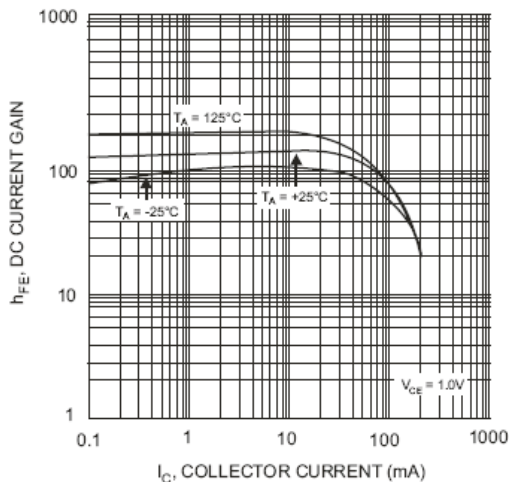


Fig.3 Typical DC Current Gain vs Collector Current

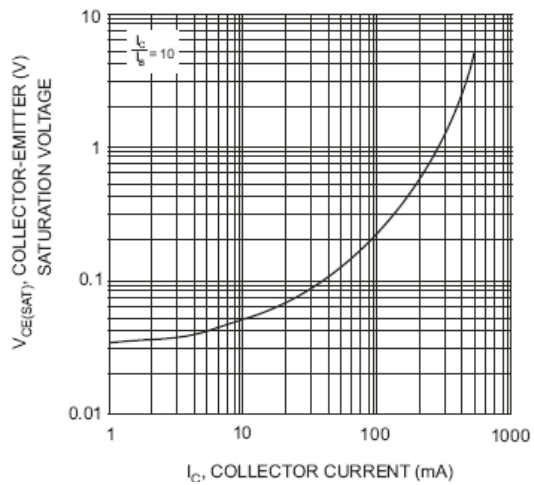


Fig.4 Typical Collector-Emitter Saturation Voltage vs. Collector Current

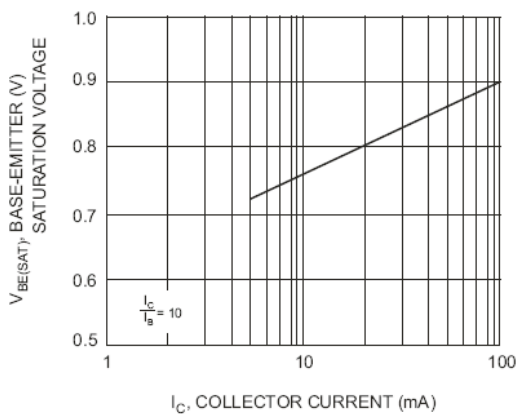


Fig.5 Typical Base-Emitter Saturation Voltage vs. Collector Current