

PNP Transistors

MMBT2907A (KMBT2907A)

■ Features

- Epitaxial Planar Die Construction
- Complementary NPN Type Available(MMBT2222A)

■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V _{CB0}	-60	V
Collector - Emitter Voltage	V _{CE0}	-60	
Emitter - Base Voltage	V _{EB0}	-5	
Collector Current - Continuous	I _C	600	mA
Power Dissipation	P _D	250	mW
Thermal resistance from junction to ambient	R _{θJA}	500	°C/W
Junction Temperature	T _J	150	°C
Storage Temperature Range	T _{stg}	-55 to 150	

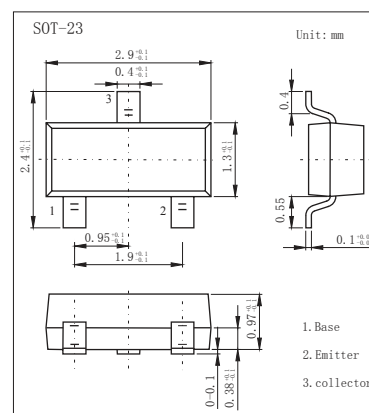
■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Test conditions	Min	Max	Unit
Collector-Base Breakdown Voltage	V _{(BR)CBO}	I _C = -100 μA, I _E = 0	-60		V
Collector-Emitter Breakdown Voltage*	V _{(BR)CEO}	I _C = -10 mA, I _B = 0	-60		V
Emitter-Base Breakdown Voltage	V _{(BR)EBO}	I _E = -100 μA, I _C = 0	-5		V
Collector Cutoff Current	I _{CBO}	V _{CB} = -50 V, I _E = 0		-20	nA
Collector Cutoff Current	I _{CEX}	V _{CE} = -30 V, V _{EB(off)} = -0.5V		-50	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		
		V _{CE} = -10V, I _C = -150mA	100	300	
		V _{CE} = -10V, I _C = -500mA	50		
Collector-Emitter Saturation Voltage *	V _{CE(sat)}	I _C = -150 mA, I _B = -15 mA		-0.4	V
		I _C = -500 mA, I _B = -50 mA		-1.6	V
Base-Emitter Saturation Voltage *	V _{BE(sat)}	I _C = -150 mA, I _B = -15 mA		-1.3	V
		I _C = -500 mA, I _B = -50 mA		-2.6	V
Current Gain - Bandwidth Product	f _T	V _{CE} = -20V, I _C = -50mA, f = 100MHz	200		MHz
Delay Time	t _d	V _{CC} = -30 V, I _C = -150 mA, I _{B1} = -15 mA		10	ns
Rise Time	t _r			40	ns
Storage Time	t _s	V _{CC} = -6.0 V, I _C = -150 mA, I _{B1} = I _{B2} = -15 mA		80	ns
Fall Time	t _f			30	ns

* Pulse test: Pulse width ≤ 300 μs, duty cycle ≤ 2.0%

■ Marking

Marking	2F
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■ Typical Characteristics

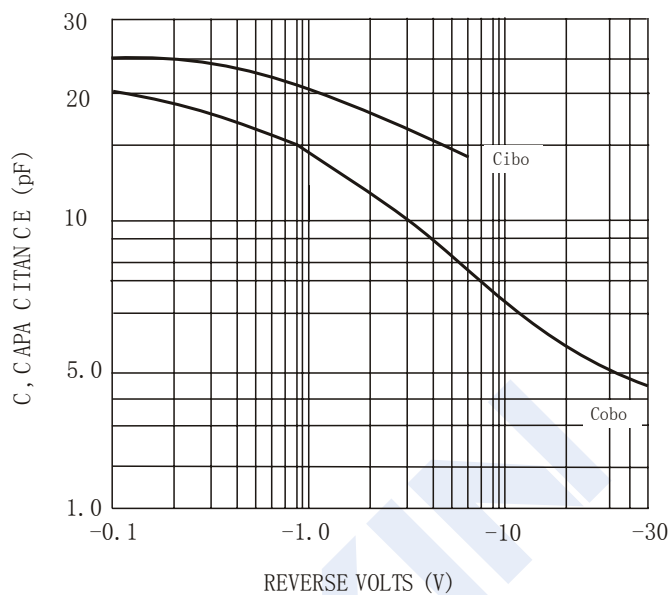


Fig. 1 Typical Capacitance

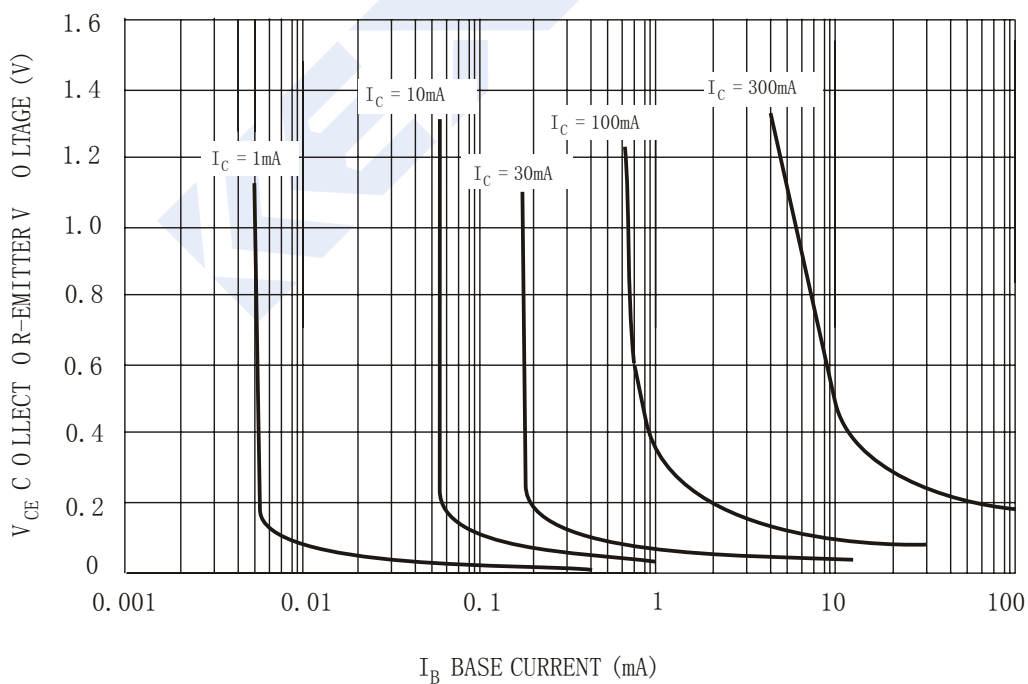


Fig. 2 Typical Collector Saturation Region