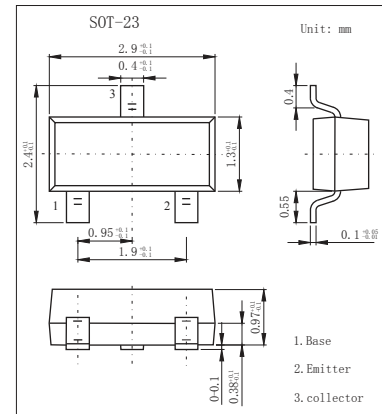


## PNP Transistors

### MMBT2907A (KMBT2907A)

#### ■ Features

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



#### ■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

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	$R_{\theta JA}$	500	$^\circ\text{C}/\text{W}$
Junction Temperature	$T_J$	150	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	-55 to 150	

**MMBT2907A (KMBT2907A)**

## ■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Test conditions	Min	Max	Unit
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	$I_C = -100 \mu A, I_E = 0$	-60		V
Collector-Emitter Breakdown Voltage*	$V_{(BR)CEO}$	$I_C = -10 mA, I_B = 0$	-60		V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	$I_E = -100 \mu A, I_C = 0$	-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  $\leq 300 \mu s$ , duty cycle  $\leq 2.0\%$ 

## ■ Marking

Marking	2F
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### MMBT2907A (KMBT2907A)

■ Typical Characteristics

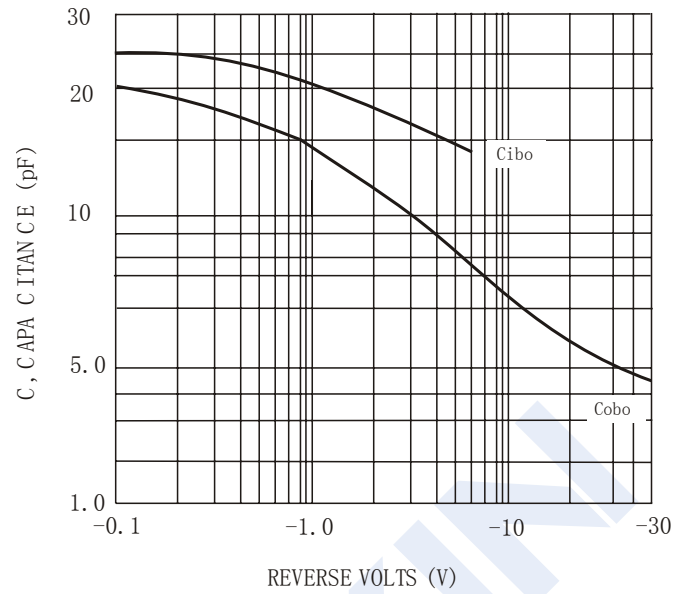


Fig. 1 Typical Capacitance

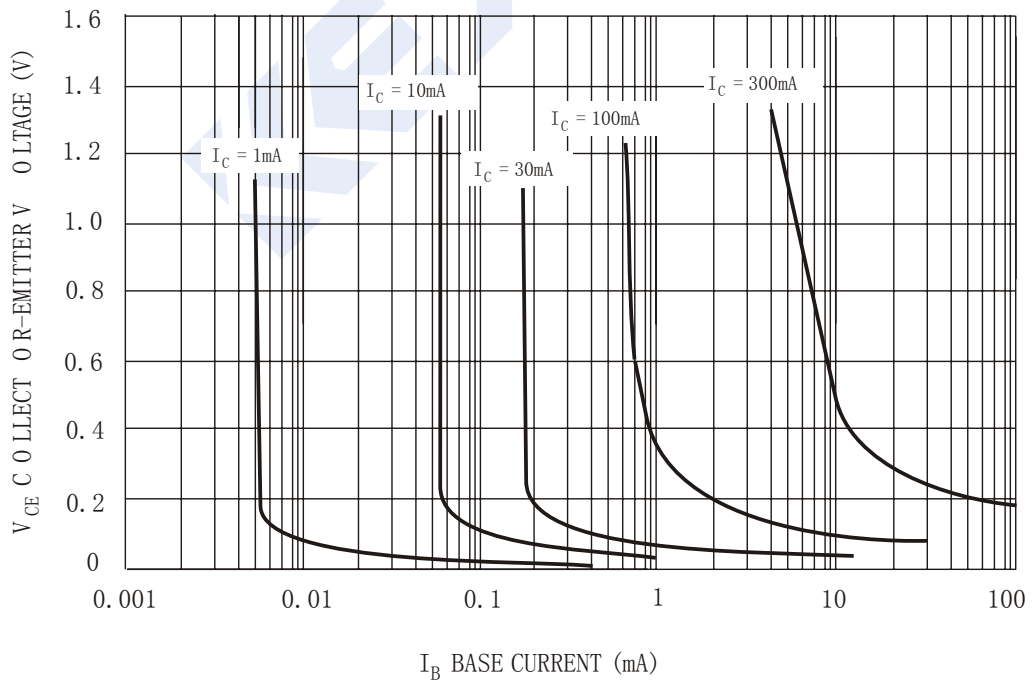


Fig. 2 Typical Collector Saturation Region