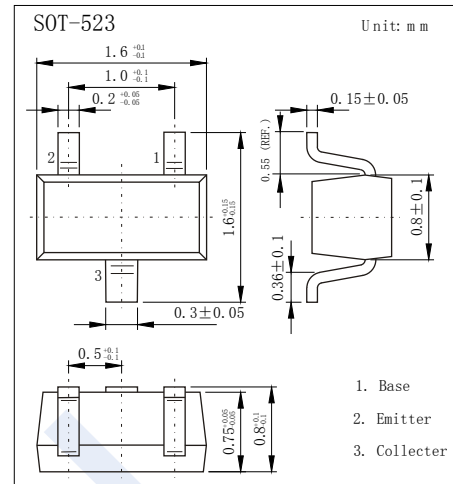


## PNP Transistors

## MMBT2907AT (KMBT2907AT)

## ■ Features

- Small Package
- Complementary to MMBT2222AT

■ 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
Collector Power Dissipation	$P_C$	150	mW
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	833	$^\circ\text{C}/\text{W}$
Junction Temperature	$T_J$	150	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	-55 to 150	

## PNP Transistors

## MMBT2907AT (KMBT2907AT)

## ■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V <sub>CB0</sub>	I <sub>c</sub> = -100 μA, I <sub>E</sub> = 0	-60			V
Collector- emitter breakdown voltage	V <sub>CE0</sub>	I <sub>c</sub> = -10 mA, I <sub>B</sub> = 0	-60			
Emitter - base breakdown voltage	V <sub>EB0</sub>	I <sub>E</sub> = -100 μA, I <sub>c</sub> = 0	-5			
Collector-base cut-off current	I <sub>CB0</sub>	V <sub>CB</sub> = -50 V, I <sub>E</sub> = 0			-100	nA
Emitter cut-off current	I <sub>EB0</sub>	V <sub>EB</sub> = -5V, I <sub>c</sub> =0			-100	
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>c</sub> =-150 mA, I <sub>B</sub> =-15mA			-0.4	V
		I <sub>c</sub> = -500 mA, I <sub>B</sub> = -50mA			-1.6	
Base - emitter saturation voltage	V <sub>BE(sat)</sub>	I <sub>c</sub> =-150 mA, I <sub>B</sub> =-15mA			-1.3	
		I <sub>c</sub> = -500 mA, I <sub>B</sub> = -50mA			-2.6	
DC current gain	h <sub>FE(1)</sub>	V <sub>CE</sub> = -10V, I <sub>c</sub> = 0.1mA	75			
	h <sub>FE(2)</sub>	V <sub>CE</sub> = -10V, I <sub>c</sub> = -1mA	100			
	h <sub>FE(3)</sub>	V <sub>CE</sub> = -10V, I <sub>c</sub> = -10mA	100			
	h <sub>FE(4)</sub>	V <sub>CE</sub> = -10V, I <sub>c</sub> = -150mA	100		300	
	h <sub>FE(5)</sub>	V <sub>CE</sub> = -10V, I <sub>c</sub> = -500mA	50			
Delay time	t <sub>d</sub>	V <sub>CC</sub> =-30V, I <sub>c</sub> =-150mA, I <sub>B1</sub> =-15mA			10	nS
Rise time	t <sub>r</sub>				40	
Storage time	t <sub>s</sub>	V <sub>CC</sub> =6V, I <sub>c</sub> =-150mA, I <sub>B1</sub> =I <sub>B2</sub> =-15mA			225	
Fall time	t <sub>f</sub>				30	
Emitter input capacitance	C <sub>ib</sub>	V <sub>EB</sub> = -2V, I <sub>c</sub> = 0, f=1MHz			30	pF
Collector output capacitance	C <sub>ob</sub>	V <sub>CB</sub> = -10V, I <sub>E</sub> = 0, f=1MHz			8	
Transition frequency	f <sub>T</sub>	V <sub>CE</sub> = -20V, I <sub>c</sub> = -50mA, f=100MHz	200			MHz

## ■ Marking

Marking	2F
---------	----