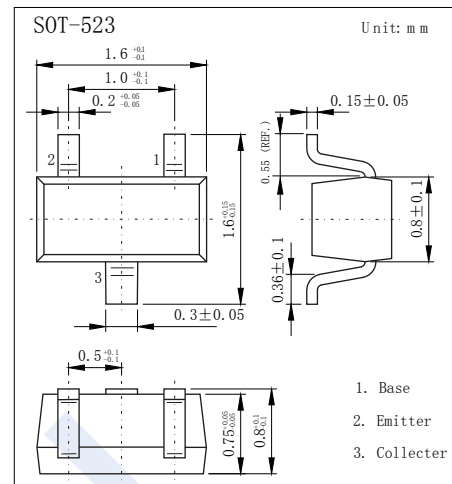


PNP Transistors

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

PNP Transistors

MMBT2907AT (KMBT2907AT)

■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V_{CBO}	$I_C = -100\ \mu\text{A}$, $I_E = 0$	-60			V
Collector- emitter breakdown voltage	V_{CEO}	$I_C = -10\ \text{mA}$, $I_B = 0$	-60			
Emitter - base breakdown voltage	V_{EBO}	$I_E = -100\ \mu\text{A}$, $I_C = 0$	-5			
Collector-base cut-off current	I_{CBO}	$V_{CB} = -50\ \text{V}$, $I_E = 0$			-100	nA
Emitter cut-off current	I_{EBO}	$V_{EB} = -5\ \text{V}$, $I_C = 0$			-100	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -150\ \text{mA}$, $I_B = -15\ \text{mA}$			-0.4	V
		$I_C = -500\ \text{mA}$, $I_B = -50\ \text{mA}$			-1.6	
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_C = -150\ \text{mA}$, $I_B = -15\ \text{mA}$			-1.3	
		$I_C = -500\ \text{mA}$, $I_B = -50\ \text{mA}$			-2.6	
DC current gain	$h_{FE(1)}$	$V_{CE} = -10\ \text{V}$, $I_C = -0.1\ \text{mA}$	75			
	$h_{FE(2)}$	$V_{CE} = -10\ \text{V}$, $I_C = -1\ \text{mA}$	100			
	$h_{FE(3)}$	$V_{CE} = -10\ \text{V}$, $I_C = -10\ \text{mA}$	100			
	$h_{FE(4)}$	$V_{CE} = -10\ \text{V}$, $I_C = -150\ \text{mA}$	100		300	
	$h_{FE(5)}$	$V_{CE} = -10\ \text{V}$, $I_C = -500\ \text{mA}$	50			
Delay time	t_d	$V_{CC} = -30\ \text{V}$, $I_C = -150\ \text{mA}$, $I_{B1} = -15\ \text{mA}$			10	nS
Rise time	t_r				40	
Storage time	t_s	$V_{CC} = 6\ \text{V}$, $I_C = -150\ \text{mA}$, $I_{B1} = I_{B2} = -15\ \text{mA}$			225	
Fall time	t_f				30	
Emitter input capacitance	C_{ib}	$V_{EB} = -2\ \text{V}$, $I_C = 0$, $f = 1\ \text{MHz}$			30	pF
Collector output capacitance	C_{ob}	$V_{CB} = -10\ \text{V}$, $I_E = 0$, $f = 1\ \text{MHz}$			8	
Transition frequency	f_T	$V_{CE} = -20\ \text{V}$, $I_C = -50\ \text{mA}$, $f = 100\ \text{MHz}$	200			MHz

■ Marking

Marking	2F
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