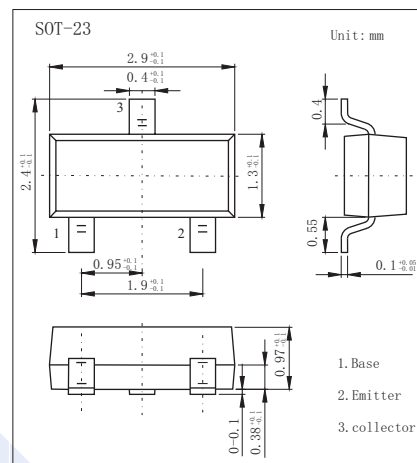


## PNP Transistors

## 2KA2007

## ■ Features

- Ideal for Medium Power Amplification and Switching

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

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	$V_{CB0}$	-40	V
Collector - Emitter Voltage	$V_{CE0}$	-40	
Emitter - Base Voltage	$V_{EB0}$	-5	
Collector Current	$I_C$	-600	mA
Total Device Dissipation Alumina Substrate	$P_D$	300	mW
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	417	$^\circ\text{C}/\text{W}$
Junction Temperature	$T_J$	150	$^\circ\text{C}$
Storage Temperature range	$T_{stg}$	-55 to +150	

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

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	$V_{CB0}$	$I_C = -100 \mu\text{A}, I_E = 0$	-40			V
Collector- emitter breakdown voltage	$V_{CE0}$	$I_C = -1.0 \text{ mA}, I_B = 0$	-40			
Emitter - base breakdown voltage	$V_{EB0}$	$I_E = -100 \mu\text{A}, I_C = 0$	-5			
Collector-base cut-off current	$I_{CBO}$	$V_{CB} = -35\text{V}, I_E = 0$			-0.1	$\mu\text{A}$
Emitter cut-off current	$I_{EBO}$	$V_{EB} = -4\text{V}, I_C = 0$			-0.1	
Collector-emitter saturation voltage *	$V_{CE(sat)}$	$I_C = -150 \text{ mA}, I_B = -15 \text{ mA}$			-0.4	V
		$I_C = -500 \text{ mA}, I_B = -50 \text{ mA}$			-0.75	
Base - emitter voltage *	$V_{BE(sat)}$	$I_C = -150 \text{ mA}, I_B = -15 \text{ mA}$	-0.75		-0.95	
		$I_C = -500 \text{ mA}, I_B = -50 \text{ mA}$			-1.3	
DC current gain *	$h_{FE}$	$I_C = -0.1 \text{ mA}, V_{CE} = -1.0 \text{ V}$	30			300
		$I_C = -1.0 \text{ mA}, V_{CE} = -1.0 \text{ V}$	60			
		$I_C = -10 \text{ mA}, V_{CE} = -1.0 \text{ V}$	100			
		$I_C = -150 \text{ mA}, V_{CE} = -2.0 \text{ V}$	100			
		$I_C = -500 \text{ mA}, V_{CE} = -2.0 \text{ V}$	20			
Transition frequency	$f_T$	$I_C = -20\text{mA}, V_{CE} = -10\text{V}, f = 100\text{MHz}$	200			MHz
Delay time	$t_d$	$V_{CC} = -30 \text{ V}, V_{EB} = -2.0 \text{ V},$			15	ns
Rise time	$t_r$	$I_C = -150 \text{ mA}, I_{B1} = -15 \text{ mA}$			20	
Storage time	$t_s$	$V_{CC} = -30 \text{ V}, I_C = -150 \text{ mA},$			225	
Fall time	$t_f$	$I_{B1} = I_{B2} = -15 \text{ mA}$			30	

\* Pulse test: pulse width  $\leq 300 \mu\text{s}$ , duty cycle  $\leq 2.0\%$ .

## ■ Marking

Marking	2C
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### Typical Characteristics

