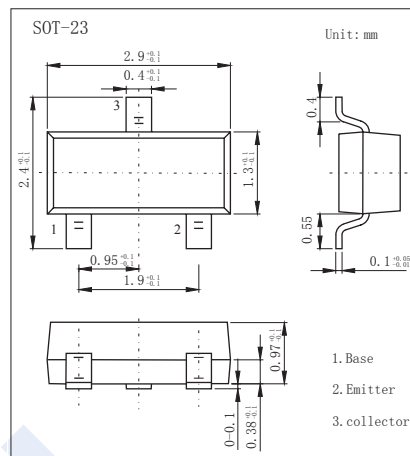


PNP Transistors

MMBTA92 (KMBTA92)

■ Features

- High voltage transistor
- Low collector-emitter saturation voltage
- Complementary to MMBTA42 (NPN)

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

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CBO}	-300	V
Collector - Emitter Voltage	V_{CEO}	-300	
Emitter - Base Voltage	V_{EBO}	-5	
Collector Current - Continuous	I_C	-500	mA
Collector Power Dissipation	P_C	350	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_{CBO}	$I_C = -100 \mu\text{A}$, $I_E = 0$	-300			V
Collector- emitter breakdown voltage	V_{CEO}	$I_C = -1 \text{ mA}$, $I_B = 0$	-300			
Emitter - base breakdown voltage	V_{EBO}	$I_E = -100 \mu\text{A}$, $I_C = 0$	-5			
Collector-base cut-off current	I_{CBO}	$V_{CB} = -200 \text{ V}$, $I_E = 0$			-0.25	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -5 \text{ V}$, $I_C = 0$			-0.1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -20 \text{ mA}$, $I_B = -2 \text{ mA}$			-0.2	V
Base - emitter saturation voltage	$V_{BE(sat)}$	$I_C = -20 \text{ mA}$, $I_B = -2 \text{ mA}$			-0.9	
DC current gain	$h_{fe} (1)$	$V_{CE} = -10 \text{ V}$, $I_C = -1 \text{ mA}$	60			
	$h_{fe} (2)$	$V_{CE} = -10 \text{ V}$, $I_C = -10 \text{ mA}$	100		300	
	$h_{fe} (3)$	$V_{CE} = -10 \text{ V}$, $I_C = -30 \text{ mA}$	60			
Transition frequency	f_T	$V_{CE} = -20 \text{ V}$, $I_C = -10 \text{ mA}$, $f = 30 \text{ MHz}$	50			MHz

■ Classification of $h_{fe}(2)$

Type	MMBTA92	MMBTA92-L
Range	100-300	100-200
Marking	2D	

PNP Transistors

MMBTA92 (KMBTA92)

■ Typical Characteristics

