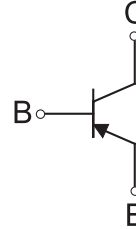


PNP Transistors

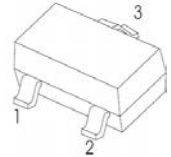
FEATURES

- Complement to MMBT6517

Equivalent Circuit



SOT - 23



1. BASE
2. EMITTER
3. COLLECTOR

MAXIMUM RATINGS ($T_a=25^\circ\text{C}$ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	-350	V
V_{CEO}	Collector-Emitter Voltage	-350	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current -Continuous	-0.5	A
P_D	Collector Power Dissipation	300	mW
$R_{\theta JA}$	Thermal Resistance from Junction to Ambient	417	$^\circ\text{C} / \text{W}$
T_J, T_{stg}	Operation Junction and Storage Temperature Range	-55 ~ +150	$^\circ\text{C}$

$T_a=25^\circ\text{C}$ unless otherwise specified

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=-0.1\text{mA}, I_E=0$	-350			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}^*$	$I_C=-1\text{mA}, I_B=0$	-350			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=-0.01\text{mA}, I_C=0$	-5			V
Collector cut-off current	I_{CBO}	$V_{CB}=-250\text{V}, I_E=0$			-0.05	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=-4\text{V}, I_C=0$			-0.05	μA
DC current gain	h_{FE}	$V_{CE}=-10\text{V}, I_C=-1\text{mA}$	20			
		$V_{CE}=-10\text{V}, I_C=-10\text{mA}$	30			
		$V_{CE}=-10\text{V}, I_C=-30\text{mA}$	30		200	
		$V_{CE}=-10\text{V}, I_C=-50\text{mA}$	20		200	
		$V_{CE}=-10\text{V}, I_C=-100\text{mA}$	15			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=-10\text{mA}, I_B=-1\text{mA}$			-0.3	V
		$I_C=-20\text{mA}, I_B=-2\text{mA}$			-0.35	V
		$I_C=-30\text{mA}, I_B=-3\text{mA}$			-0.5	V
		$I_C=-50\text{mA}, I_B=-5\text{mA}$			-1	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=-10\text{mA}, I_B=-1\text{mA}$			-0.75	V
		$I_C=-20\text{mA}, I_B=-2\text{mA}$			-0.85	V
		$I_C=-30\text{mA}, I_B=-3\text{mA}$			-0.9	V
Base-emitter voltage	V_{BE}	$V_{CE}=-10\text{V}, I_C=-100\text{mA}$			-2	V
Transition frequency	f_T^*	$V_{CE}=-20\text{V}, I_C=-10\text{mA}, f=20\text{MHz}$	40		200	MHz

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

Typical Characteristics

