

# PBSS5120T

	Symbol	Unit	Conditions	Value
Collector-Emitter Voltage	$V_{CE0}$	V	$I_C = -1\text{mA}$ , $I_B = 0$	-20
Collector-Base Voltage	$V_{CB0}$	V	$I_C = -100\mu\text{A}$ , $I_E = 0$	-20
Emitter-Base Voltage	$V_{EB0}$	V	$I_E = -100\mu\text{A}$ , $I_C = 0$	-5
Collector Current	$I_C$	A		-1
Collector Power Dissipation	$P_c$	mW		300

# PBSS5120T

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

Item	Symbol	Unit	Conditions	Min	Max
Collector-Emitter Voltage	$V_{CE0}$	V	$I_C=-1\text{mA}, I_B=0$	-20	
Collector-Base Voltage	$V_{CB0}$	V	$I_C=-100\mu\text{A}, I_E=0$	-20	
Emitter-Base Voltage	$V_{EB0}$	V	$I_E=-100\mu\text{A}, I_C=0$	-5	
Collector-base Cut-off Current	$I_{CBO}$	nA	$V_{CB}=-20\text{V}$		-100
Base-emitter Cut-off Current	$I_{EB0}$	nA	$V_{EB}=-4\text{V}$		-100
DC Current Gain	$h_{FE}$		$I_C=-100\text{mA}, V_{CE}=-2\text{V}$	300	
			$I_C=-500\text{mA}, V_{CE}=-2\text{V}$	250	
			$I_C=-1\text{A}, V_{CE}=-2\text{V}$	200	
Collector Emitter Saturation Voltage	$V_{CE(sat)1}$	mV	$I_C=-100\text{mA}, I_B=-1\text{mA}$		-100
	$V_{CE(sat)2}$	mV	$I_C=-500\text{mA}, I_B=-50\text{mA}$		-125
	$V_{CE(sat)3}$	mV	$I_C=-1\text{A}, I_B=-50\text{mA}$		-250
Equivalent On-Resistance	$R_{CE(sat)}$	m $\Omega$	$I_C=-500\text{mA}, I_B=-50\text{mA}$		250
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	V	$I_C=-1\text{A}, I_B=-100\text{mA}$		-1.1
Base-Emitter Turn-On Voltage	$V_{BE(on)}$	V	$I_C=-100\text{mA}, V_{CE}=-2\text{V}$		-0.75
Transition frequency	$f_T$	MHz	$I_C=-100\text{mA}, V_{CE}=-10\text{V}, f=100\text{MHz}$	100	
Collector Capacitance	$C_{ob}$	pF	$V_{CB}=-10\text{V}, I_E=0, f=1\text{MHz}$		28

## Characteristics (Typical)



vSOT-23 Package Outline Dimensions

SOT-23 Soldering Footprint

## Disclaimer

The information presented in this document is for reference only.