

Plastic-Encapsulate Transistors

TRANSISTOR (PNP)

FEATURES

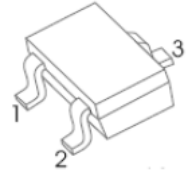
- Complementary To MMBT4401W
- Small Surface Mount Package

MARKING:2T

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

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	-40	V
V_{CEO}	Collector-Emitter Voltage	-40	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current	-600	mA
P_C	Collector Power Dissipation	200	mW
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	625	$^{\circ}\text{C/W}$
T_j	Junction Temperature	150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature	-55~+150	$^{\circ}\text{C}$

SOT-323



1. BASE
2. EMITTER
3. COLLECTOR

ELECTRICAL CHARACTERISTICS ($T_a=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=-100\mu\text{A}$, $I_E=0$	-40			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=-1\text{mA}$, $I_B=0$	-40			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=-100\mu\text{A}$, $I_C=0$	-5			V
Collector cut-off current	I_{CBO}	$V_{CB}=-35\text{V}$, $I_E=0$			-100	nA
Collector cut-off current	I_{CEX}	$V_{CE}=-35\text{V}$, $V_{BE}=-0.4\text{V}$			-100	nA
DC current gain	h_{FE}	$V_{CE}=-1\text{V}$, $I_C=-100\mu\text{A}$	30			
		$V_{CE}=-1\text{V}$, $I_C=-1\text{mA}$	60			
		$V_{CE}=-1\text{V}$, $I_C=-10\text{mA}$	100			
		$V_{CE}=-2\text{V}$, $I_C=-150\text{mA}$	100		300	
		$V_{CE}=-2\text{V}$, $I_C=-500\text{mA}$	20			
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	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=-150\text{mA}$, $I_B=-15\text{mA}$	-0.75		-0.95	V
		$I_C=-500\text{mA}$, $I_B=-50\text{mA}$			-1.3	V
Transition frequency	f_T	$V_{CE}=-10\text{V}$, $I_C=-20\text{mA}$, $f=100\text{MHz}$	200			MHz
Collector output capacitance	C_{ob}	$V_{CB}=-10\text{V}$, $I_E=0$, $f=1\text{MHz}$			8.5	pF

Typical Characteristics

