

## Plastic-Encapsulate Transistors

TRANSISTOR (PNP)

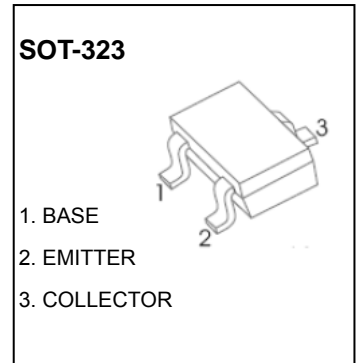
### FEATURES

- Complementary To MMBT4401W
- Small Surface Mount Package

**MARKING:2T**

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

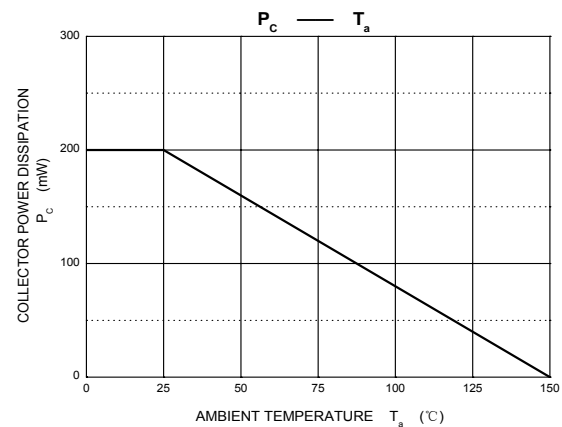
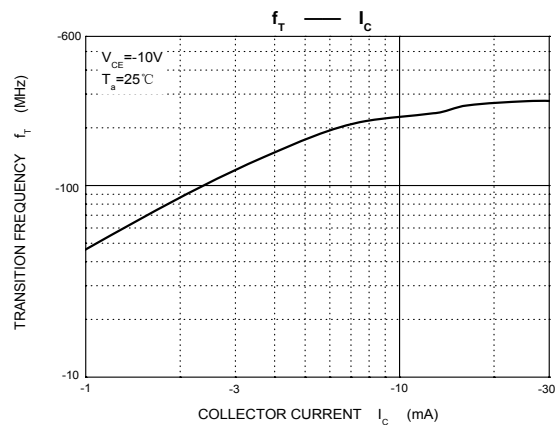
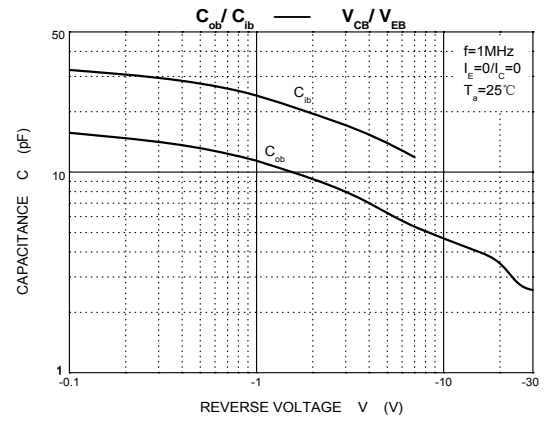
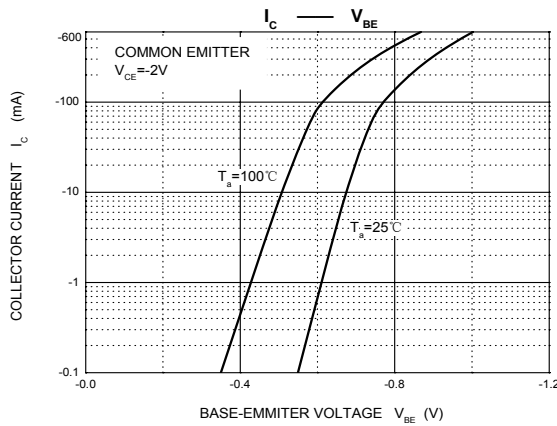
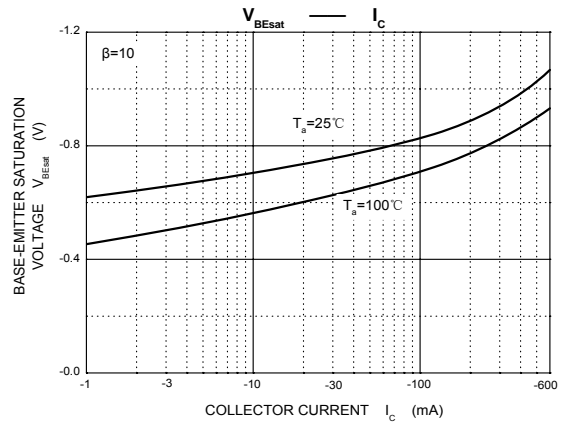
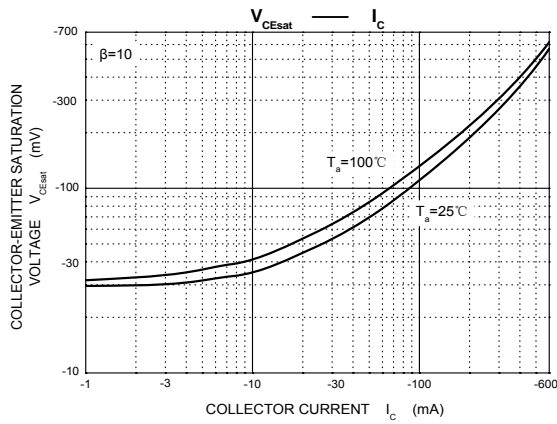
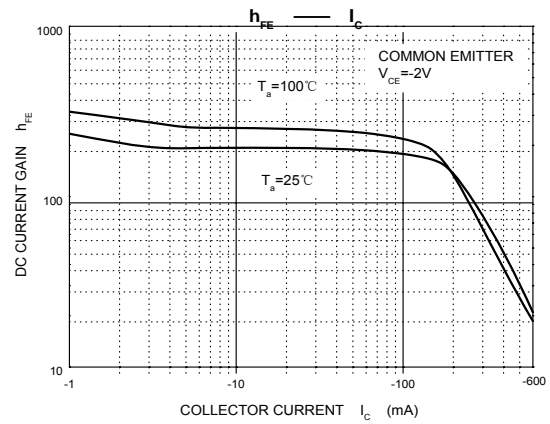
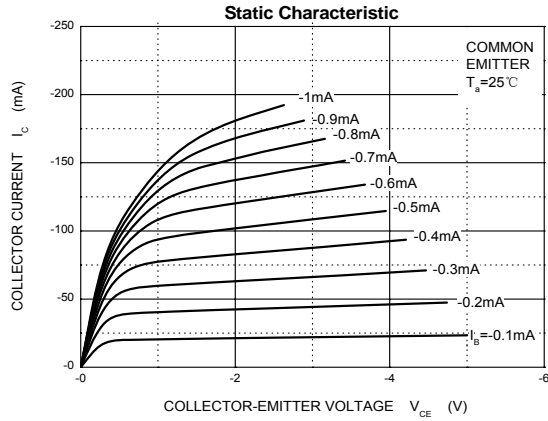
Symbol	Parameter	Value	Unit
$V_{CBO}$	Collector-Base Voltage	-40	V
$V_{CEO}$	Collector-Emitter Voltage	-40	V
$V_{EBO}$	Emitter-Base Voltage	-5	V
$I_C$	Collector Current	-600	mA
$P_C$	Collector Power Dissipation	200	mW
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	625	$^\circ\text{C}/\text{W}$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



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

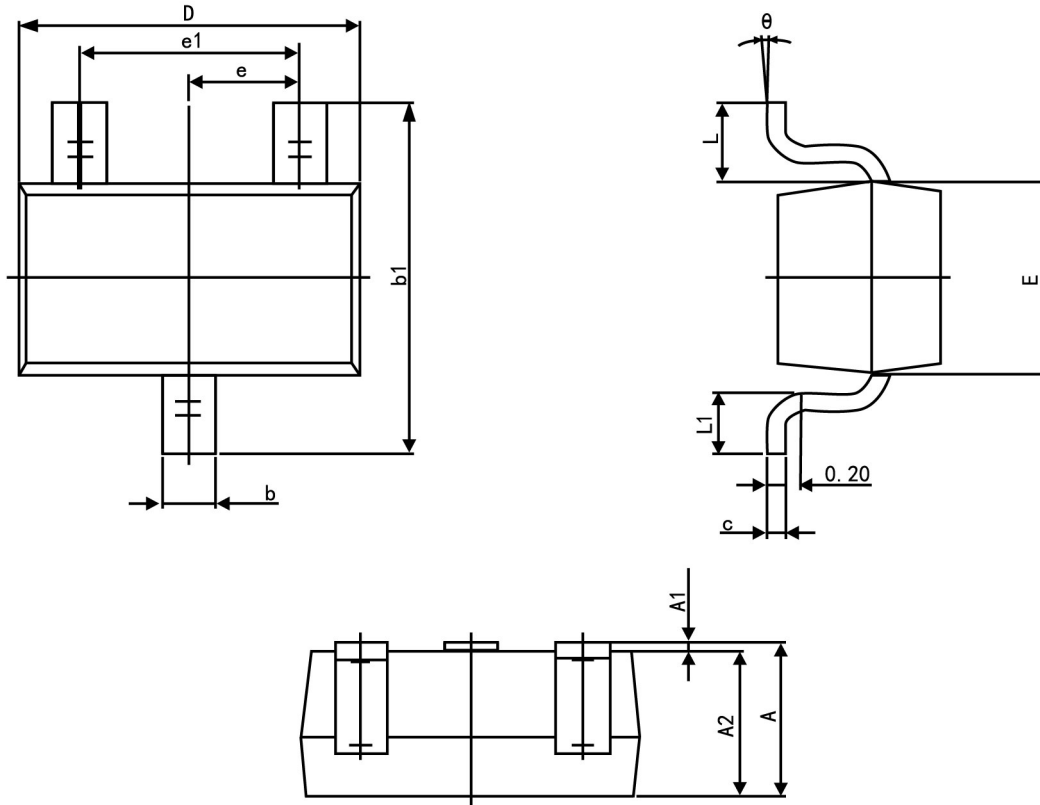
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=-100\mu\text{A}$ , $I_E=0$	-40			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=-1\text{mA}$ , $I_B=0$	-40			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=-100\mu\text{A}$ , $I_C=0$	-5			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





## SOT-323 Package Outline Dimensions



Symbol	Dimension in Millimeters	
	Min	Max
A	0.900	1.100
A1	0.000	0.100
A2	0.900	1.000
b	0.200	0.400
c	0.080	0.150
D	2.000	2.200
E	1.150	1.350
E1	2.150	2.450
e	0.650 TYP.	
e1	1.200	1.400
L	0.525 REF.	
L1	0.260	0.460
theta	0°	8°