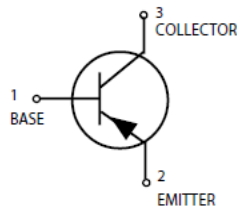
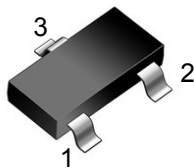


**SOT-23**



MARKING: 2T

**Features**

As complementary type the NPN transistor MMBT4401 is recommended  
 Epitaxial planar die construction  
 Halogen free and RoHS compliant

**Mechanical Data**

SOT-23 Small Outline Plastic Package  
 EpoxyUL: 94V-0

**Summary of Packing Options**

Package	Packing Description	Packing Quantity	Industry Standard
SOT-23	Tape/Reel,7" reel	3000	EIA-481-1

**Maximum Ratings & Thermal Characteristics**

(Ratings at 25°C ambient temperature unless otherwise specified.)

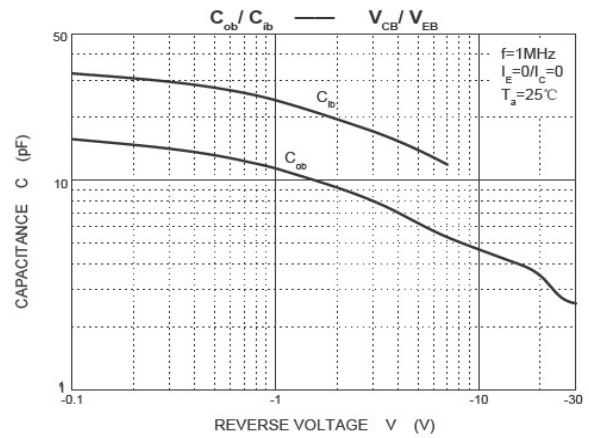
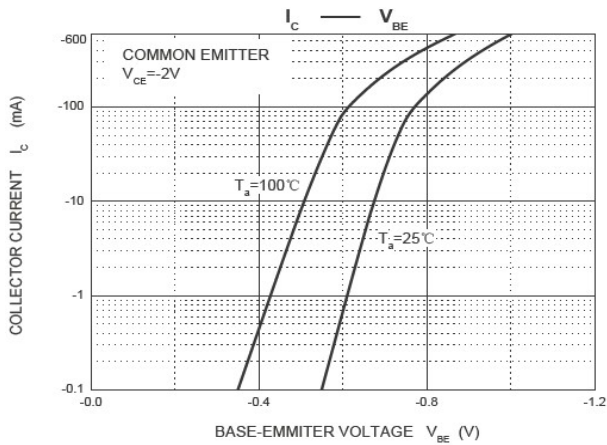
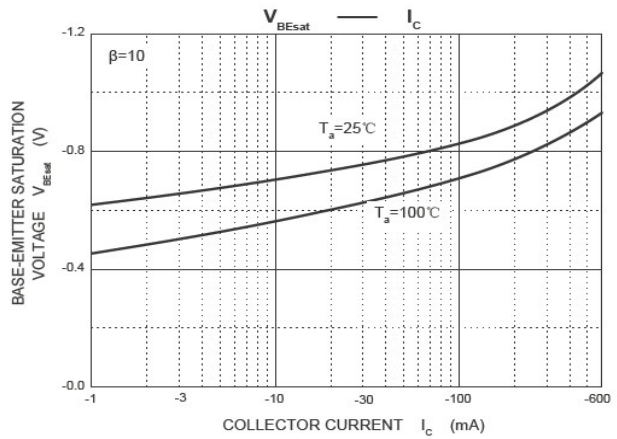
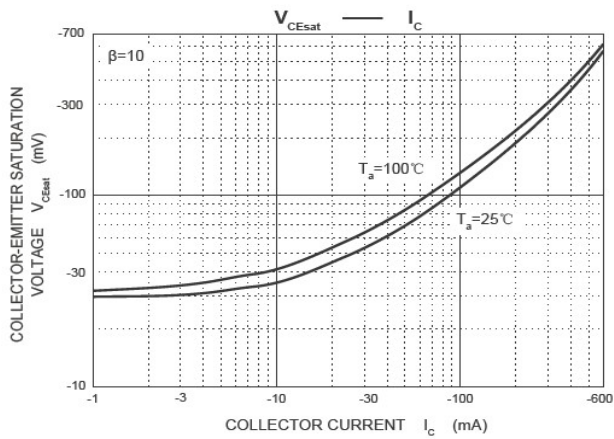
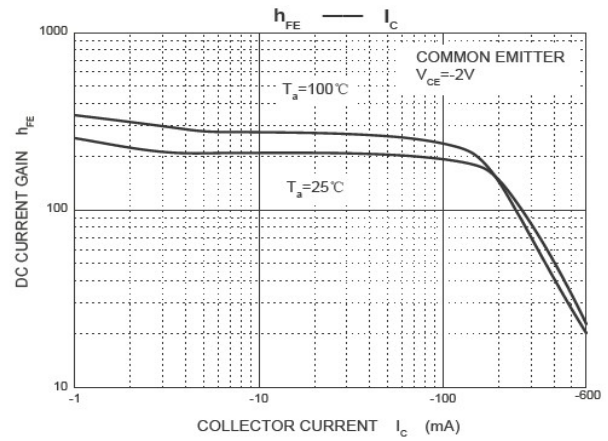
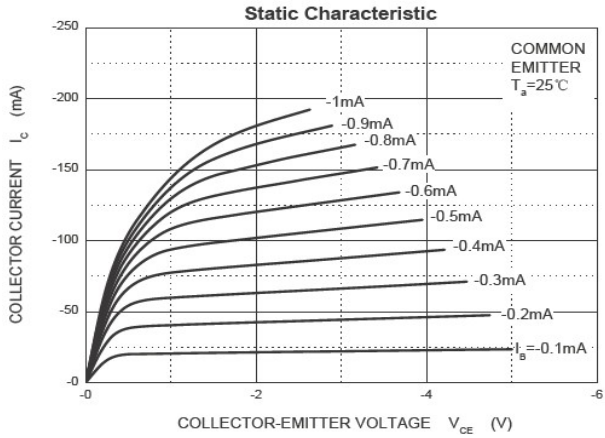
Parameters	Symbol	Value	Unit
Collector-Base Voltage	V <sub>CB0</sub>	-40	V
Collector-Emitter Voltage	V <sub>CEO</sub>	-40	V
Emitter -Base Voltage	V <sub>EBO</sub>	-5	V
Collector Current-Continuous	I <sub>C</sub>	-600	mA
Collector Power Dissipation	P <sub>C</sub>	300	mW
Junction Temperature	T <sub>j</sub>	150	°C
Storage Temperature	T <sub>stg</sub>	-55-+150	°C
Thermal resistance From junction to ambient	R <sub>θJA</sub>	417	°C/W

**Electrical Characteristics**

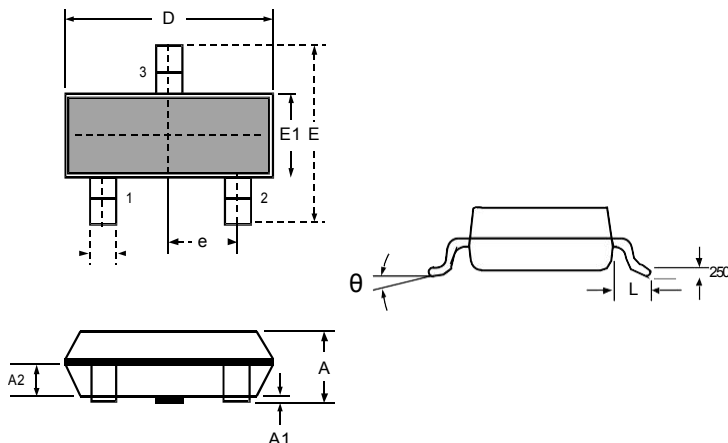
(Ratings at 25°C ambient temperature unless otherwise specified.)

Parameter	Symbols	Test Condition	Limits		Unit
			Min	Max	
Collector-base breakdown voltage	V(BR)CBO	IC=-100uA, IE=0	-40		V
Collector-emitter breakdown voltage	V(BR)CEO	IC=-1mA, IB=0	-40		V
Emitter-base breakdown voltage	V(BR)EBO	IE=-100uA, IC=0	-5		V
Collector cut-off current	ICBO	VCB=-35V, IE=0		-100	nA
Collector cut-off current	ICEX	VCE=-35V, VEB(off)=-0.4V		-100	nA
Emitter cut-off current	IEBO	VEB=-4V, IC=0		-100	nA
DC current gain	hFE(1)	VCE=-1V, IC=-0.1mA	30		
	hFE(2)	VCE=-1V, IC=-1mA	60		
	hFE(3)	VCE=-1V, IC=-10mA	100		
	hFE(4)	VCE=-2V, IC=-150mA	100	300	
	hFE(5)	VCE=-2V, IC=-500mA	20		
Collector-emitter saturation voltage	VCE(sat)	IC=-150mA, IB=-15mA		-0.40	V
		IC=-500mA, IB=-50mA		-0.75	V
Base -emitter saturation voltage	VBE(sat)	IC=-150mA, IB=-15mA		-0.95	V
		IC=-500mA, IB=-50mA		-1.30	V
Transition frequency	fT	VCE=-10V, IC=-20mA, f=100MHz	200		MHz
Delay time	td	VCC=-30V, VBE(off)=-0.5V, IC=-150mA, IB1=-15mA		15	nS
Rise time	tr			20	nS
Storage time	ts	VCC=-30V, IC=-150mA, IB1=IB2=-15mA		225	nS
Fall time	tf			60	nS

## Ratings and Characteristic Curves



## Package Outline Dimensions: SOT-23



### DIMENSIONS

SYMBOL	MILLIMETER		INCHES	
	MIN	MAX	MIN	MAX
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
D	2.800	3.000	0.110	0.118
b	0.300	0.500	0.012	0.020
E	2.250	2.550	0.089	0.100
E1	1.200	1.400	0.047	0.055
e	0.950 BSC		0.037 BSC	
L	0.300	0.500	0.012	0.020
$\theta$	0	8°	0	8°