



# THE DATASHEET OF MMBT4401



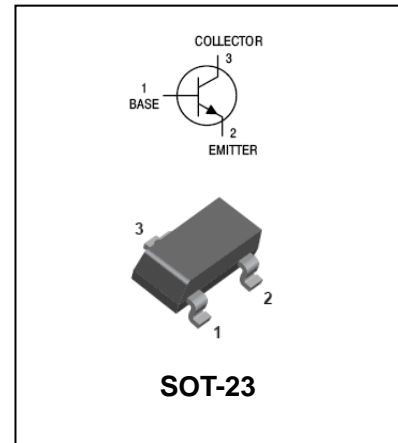
## NPN Silicon Epitaxial Planar Transistor

### FEATURES

- Epitaxial planar die construction.
- Complementary PNP type available:  
MMBT4403.
- Ideal for medium power amplification and switching.

### APPLICATIONS

- General purpose application, switching application.



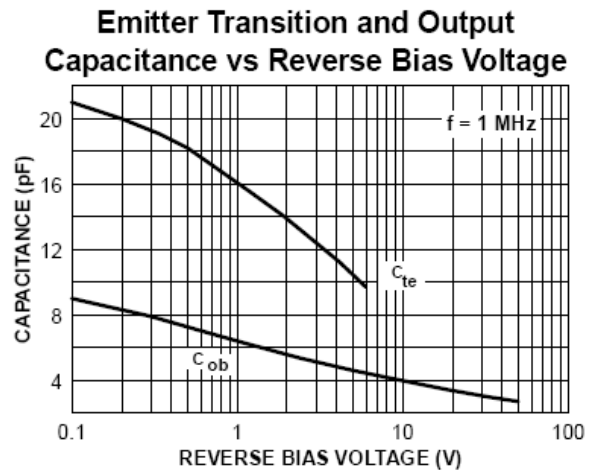
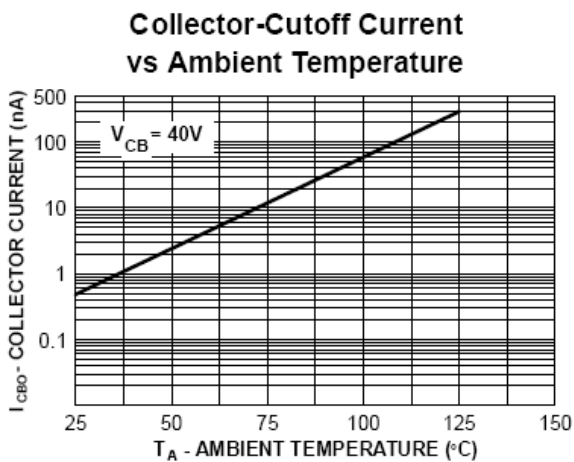
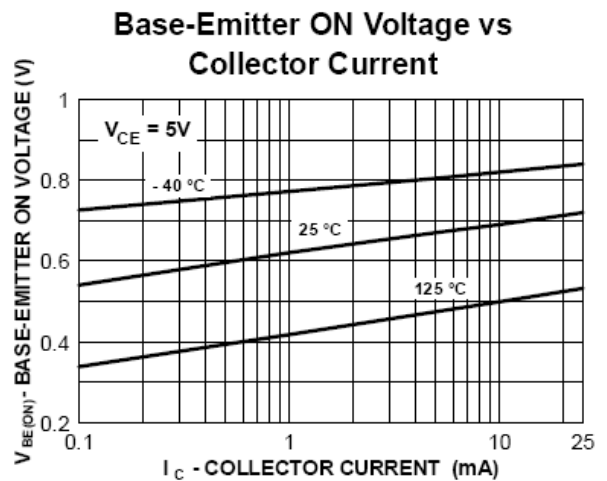
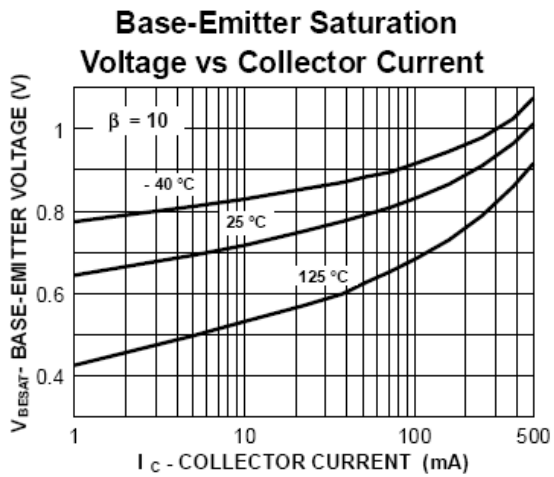
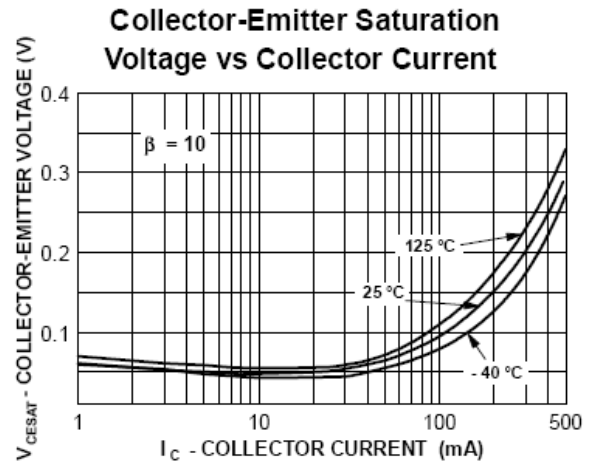
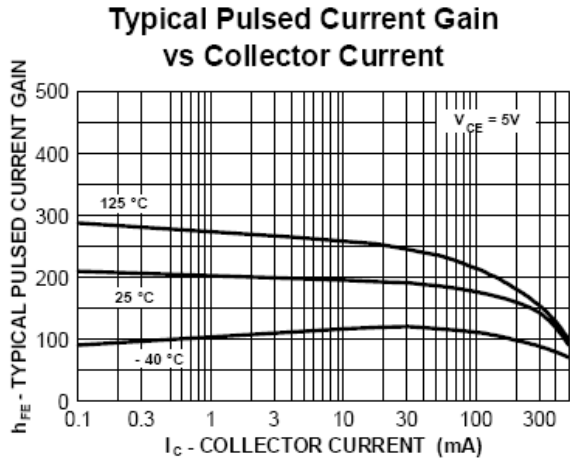
### MAXIMUM RATING @ Ta=25°C unless otherwise specified

Symbol	Parameter	Value	Units
V <sub>CBO</sub>	Collector-Base Voltage	60	V
V <sub>CEO</sub>	Collector-Emitter Voltage	40	V
V <sub>EBO</sub>	Emitter-Base Voltage	6	V
I <sub>C</sub>	Collector Current -Continuous	600	mA
P <sub>C</sub>	Collector Power Dissipation	350	mW
T <sub>j</sub> , T <sub>stg</sub>	Junction and Storage Temperature	-55~150	°C

**ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified**

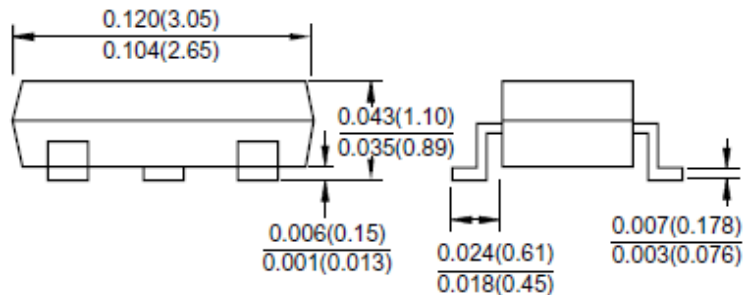
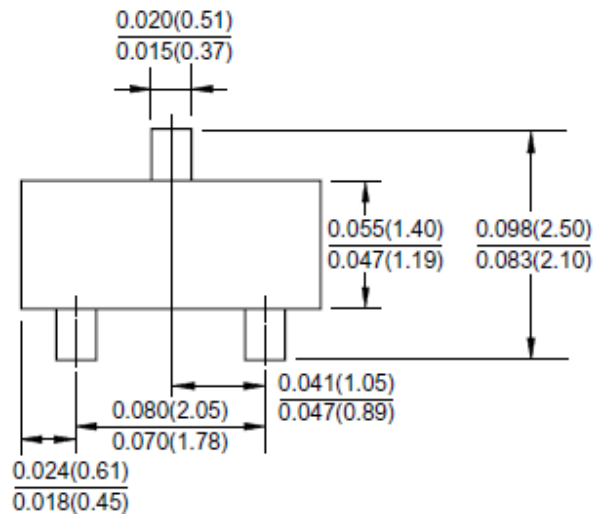
Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100\mu A, I_E=0$	60			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=1mA, I_B=0$	40			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=100\mu A, I_C=0$	6			V
Collector cut-off current	$I_{CBO}$	$V_{CB}=50V, I_E=0$			0.1	$\mu A$
Collector cut-off current	$I_{CEO}$	$V_{CE}=35V, I_E=0$			0.1	$\mu A$
Emitter cut-off current	$I_{EBO}$	$V_{EB}=5V, I_C=0$			0.1	$\mu A$
DC current gain	$h_{FE}$	$V_{CE}=1V, I_C=0.1mA$	20			
		$V_{CE}=1V, I_C=1.0mA$	40			
		$V_{CE}=1V, I_C=10mA$	80			
		$V_{CE}=1V, I_C=150mA$	100		300	
		$V_{CE}=2V, I_C=500mA$	40			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=150mA, I_B=15mA$ $I_C=500mA, I_B=50mA$			0.4 0.75	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=150mA, I_B=15mA$ $I_C=500mA, I_B=50mA$		0.75	0.95 1.2	V
Transition frequency	$f_T$	$V_{CE}=10V, I_C=20mA$ $f=100MHz$	250			MHz
Collector output capacitance	$C_{ob}$	$V_{CB}=5V, I_E=0, f=1MHz$			6.5	pF

## TYPICAL CHARACTERISTICS @ $T_a=25^\circ\text{C}$ unless otherwise specified



## Dimensions in inch (mm)

### SOT-23



## Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

- [View MMBT4401 on WIN SOURCE](#)
- [ShenZhen SikorMicro Semicon Co. Ltd Information](#)

## Optimize Your Supply Chain with WIN SOURCE Solutions

- ✓ Global Sourcing Solution
- ✓ Obsolete Management
- ✓ Cost Control Management
- ✓ Shortage Management
- ✓ Alternative Solution
- ✓ Excess Inventory Management