MMBTH10

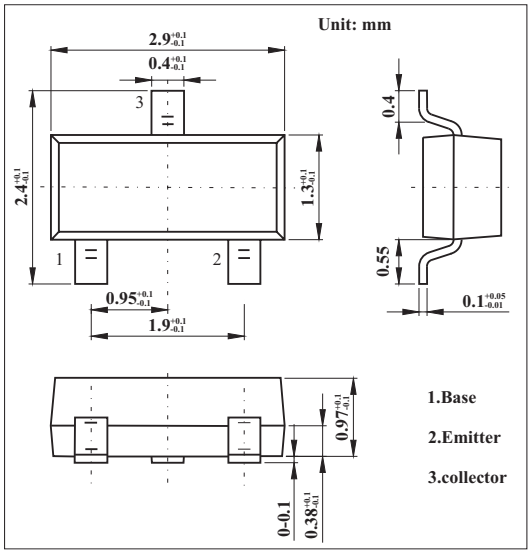
SOT-23 Plastic-Encapsulate Transistors

FEATURES

- ●High transition frequency.
- ●Power dissipation.(P_C=350mW)
- ●TRANSISTOR(NPN)

MECHANICAL DATA

- ●Case: SOT-23 Small Outline Plastic Package
- ●Polarity: Color band denotes cathode end
- ●Mounting Position: Any



MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

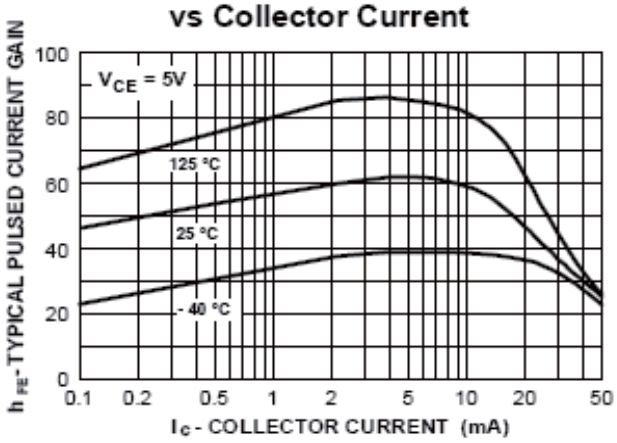
Parameter	Symbol	Value	Units
Collector-Base Voltage	V_{CBO}	30	V
Collector-Emitter Voltage	V_{CEO}	25	V
Emitter-Base Voltage	V_{EBO}	3	V
Collector Current -Continuous	I_C	50	mA
Collector Dissipation	P_C	350	mW
Junction and Storage Temperature	T_j,T_{stg}	-55~150	℃

Electrical Specification(T_A=25℃ unless otherwise specified)

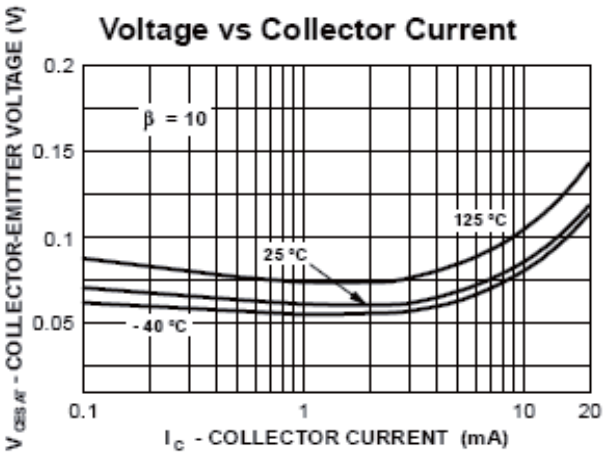
Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=100μA,I_E=0	30		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=0.1mA,I_B=0	25		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=10μA,I_C=0	3		V
Collector cut-off current	I_{CBO}	V_{CB}=25V,I_E=0		0.1	μA
Emitter cut-off current	I_{EBO}	V_{EB}=2V,I_C=0		0.1	μA
DC current gain	h_{FE}	V_{CE}=10V,I_C=4.0mA	60		
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=4.0mA, I_B= 0.4mA		0.5	V
Base-emitter on voltage	$V_{BE(on)}$	I_C=4.0mA, V_{CE}=10V		0.95	V
Transition frequency	f_T	V_{CE}=10V, I_C= 4.0mA f=100MHz	650		MHz

RATINGS AND CHARACTERISTIC CURVES

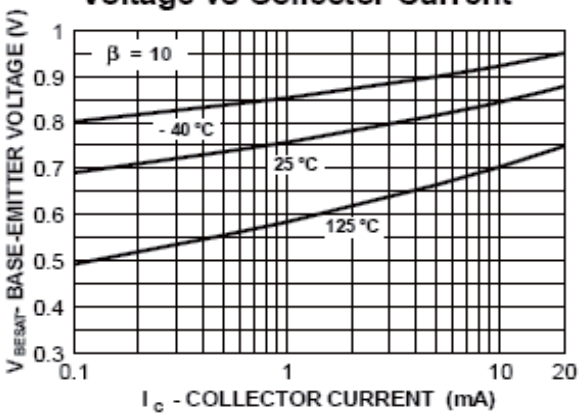
Typical Pulsed Current Gain vs Collector Current



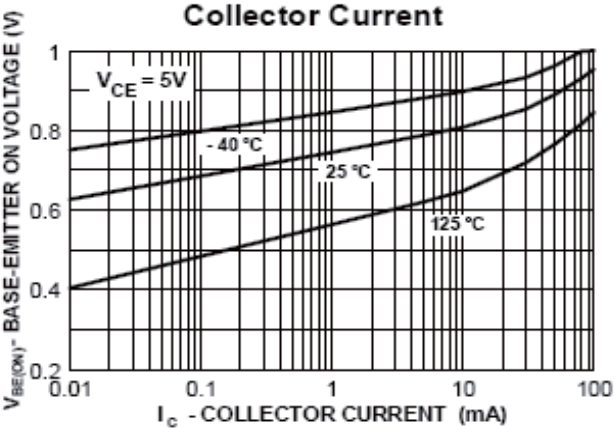
Collector-Emitter Saturation Voltage vs Collector Current



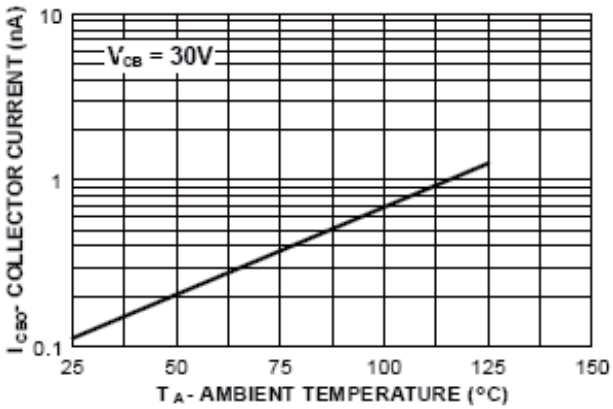
Base-Emitter Saturation Voltage vs Collector Current



Base-Emitter ON Voltage vs Collector Current



Collector-Cutoff Current vs Ambient Temperature



Power Dissipation vs Ambient Temperature