

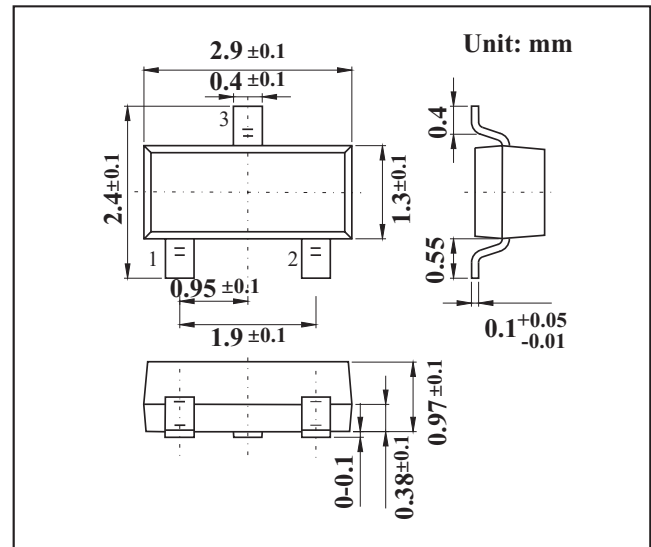
SOT-23 Plastic-Encapsulate Transistors

FEATURES

- High transition frequency.
- Power dissipation.($P_C=350\text{mW}$)
- 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)

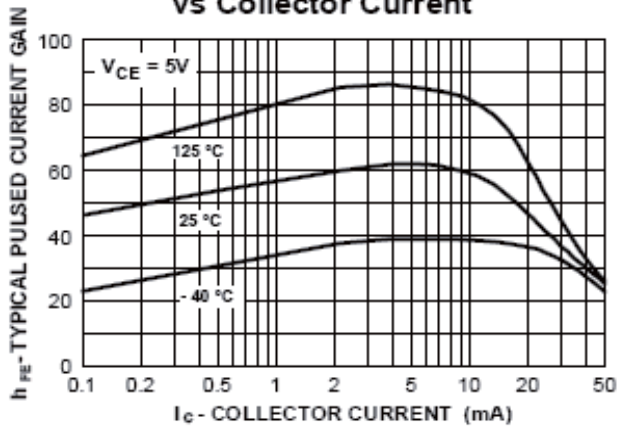
Parameter	Symbol	Value	Units
Collector-Base Voltage	V_{CBO}	30	V
Collector-Emitter Voltage	V_{CEO}	25	V
Emitter-Base Voltage	V_{EBO}	3	V
Collector Current -Continuous	I_C	50	mA
Collector Dissipation	P_C	350	mW
Junction and Storage Temperature	T_j, T_{stg}	-55~150	°C

Electrical Specification($T_A=25^\circ\text{C}$ unless otherwise specified)

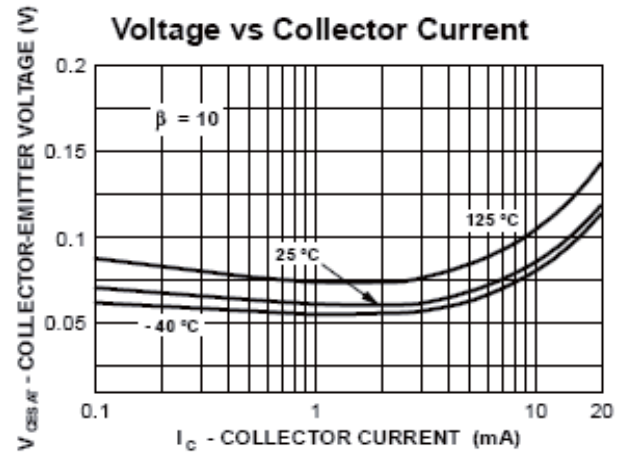
Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100\mu\text{A}, I_E=0$	30		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=0.1\text{mA}, I_B=0$	25		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=10\mu\text{A}, I_C=0$	3		V
Collector cut-off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

RATINGS AND CHARACTERISTIC CURVES

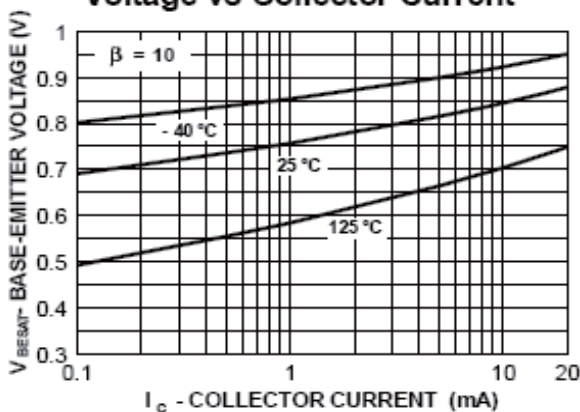
Typical Pulsed Current Gain
vs Collector Current



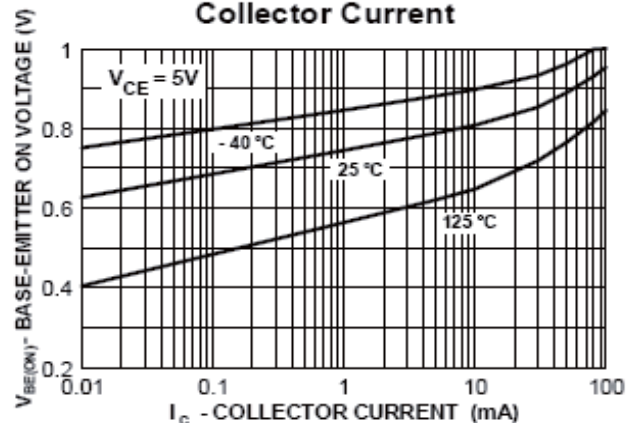
Collector-Emitter Saturation
Voltage vs Collector Current



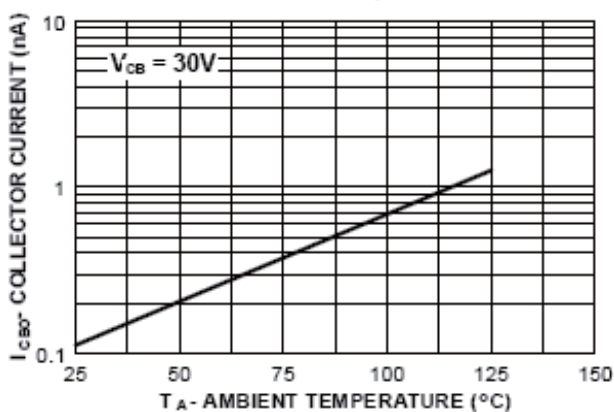
Base-Emitter Saturation
Voltage vs Collector Current



Base-Emitter ON Voltage vs
Collector Current



Collector-Cutoff Current
vs Ambient Temperature



Power Dissipation vs
Ambient Temperature

