

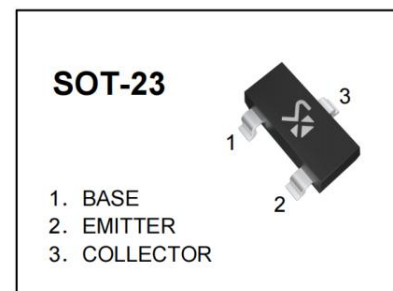
PNP Silicon Epitaxial Planar Transistor

For switching and AF amplifier application

The transistor is subdivided into five groups R,O,Y,P and L, according to its DC current gain. AS complementary type the NPN transistor MMBTSC945 is recommended.

Absolute Maximum Ratings($T_A=25^{\circ}\text{C}$, unless otherwise noted.)

Parameter	Symbol	Limit	Unit
Collector-Base Voltage	V_{CBO}	-60	V
Collector-Emitter Voltage	V_{CEO}	-50	V
Emitter-Base Voltage	V_{EBO}	-5	V
Collector Current Continuous	I_C	-150	mA
Collector Power Dissipation	P_{tot}	200	mW
Junction Temperature	T_J	150	$^{\circ}\text{C}$
Storage Temperature	T_{STG}	-55~+150	$^{\circ}\text{C}$



Electrical Characteristics($T_A=25^{\circ}\text{C}$, unless otherwise noted.)

Parameter	Symbol	Condition	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=-100\mu\text{A}, I_E=0$	-60			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=-10\text{mA}, I_B=0$	-50			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=-10\mu\text{A}, I_C=0$	-5			V
Collector cut-off current	I_{CBO}	$V_{CB}=-60\text{V}, I_E=0$			-0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=-5\text{V}, I_C=0$			-0.1	μA
DC current gain	R	$V_{CE}=-6\text{V}, I_C=-2\text{mA}$	40		80	
	O		70		140	
	Y		120		240	
	P		200		400	
	L		350		700	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=-100\text{mA}, I_B=-10\text{mA}$			-0.3	V
Base-emitter voltage	$V_{BE(on)}$	$V_{CE}=-6\text{V}, I_C=-1\text{mA}$	0.5		0.8	V
Gain bandwidth product	f_T	$V_{CE}=-6\text{V}, I_C=-10\text{mA}$	50	180		MHz
Output capacitance	C_{ob}	$V_{CB}=-10\text{V}, I_E=0$ $f=1\text{MHz}$		2.8		pF
Noise Figure	NF	$V_{CE}=-6\text{V}, I_C=0.3\text{mA}$, $R_S=10\text{k}\Omega, f=100\text{Hz}$		6	20	dB

Typical Characteristic

Fig. 1 Output Characteristics Curve

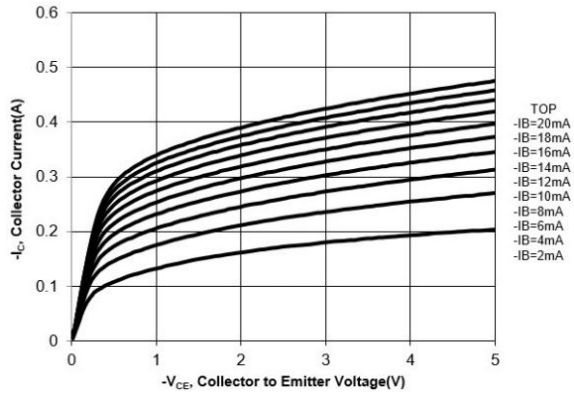


Fig. 2 Collector Current vs. Base to Emitter Voltage

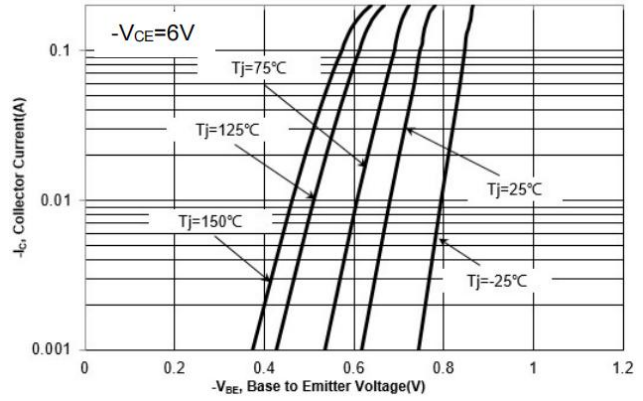


Fig. 3 DC Current Gain vs. Collector Current

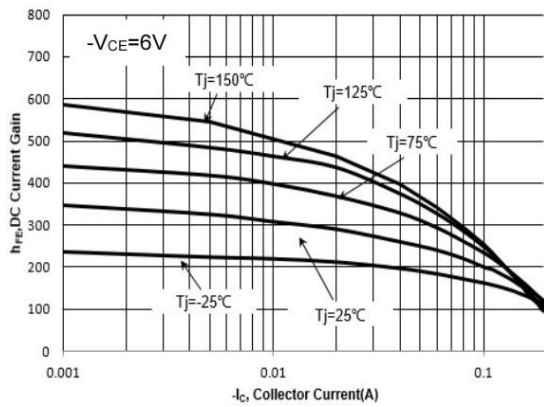


Fig. 4 V_{BESAT} vs. Collector Current

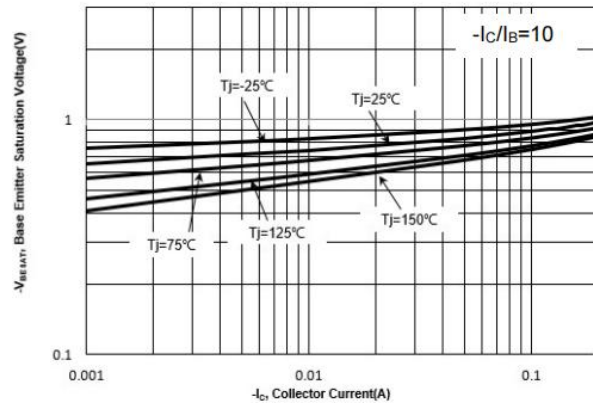


Fig. 5 V_{CESAT} vs. Collector Current

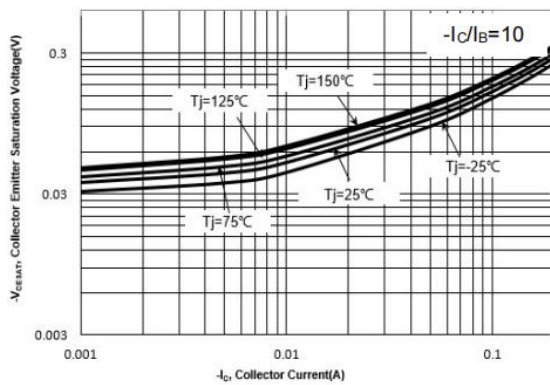
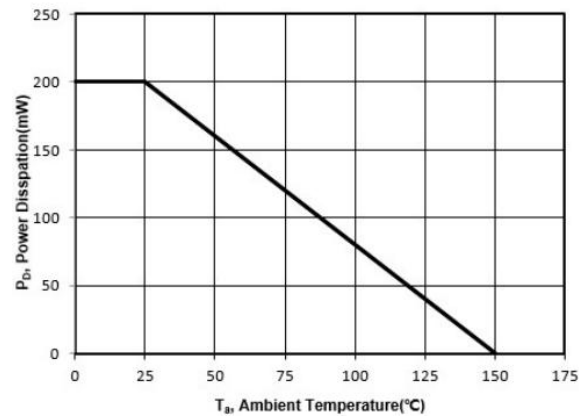


Fig. 6 Power Derating Curve



Package Information

SOT-23

Dimensions in mm

