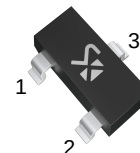


NPN Silicon Epitaxial Planar Transistor

Features

- Power Dissipation of 200mW
- High Stability and High Reliability

SOT-23



1. BASE
2. EMITTER
3. COLLECTOR

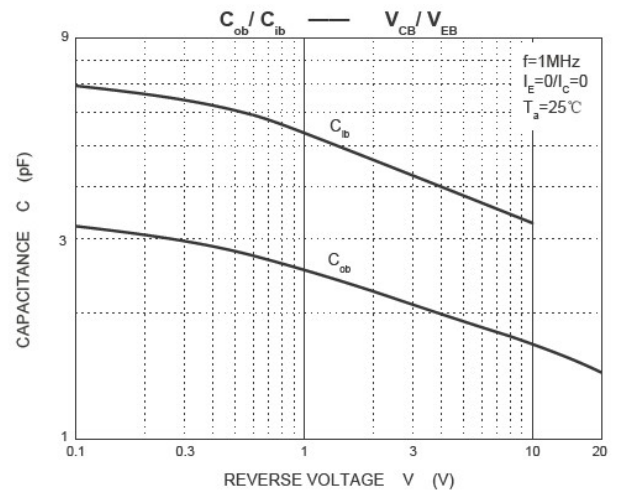
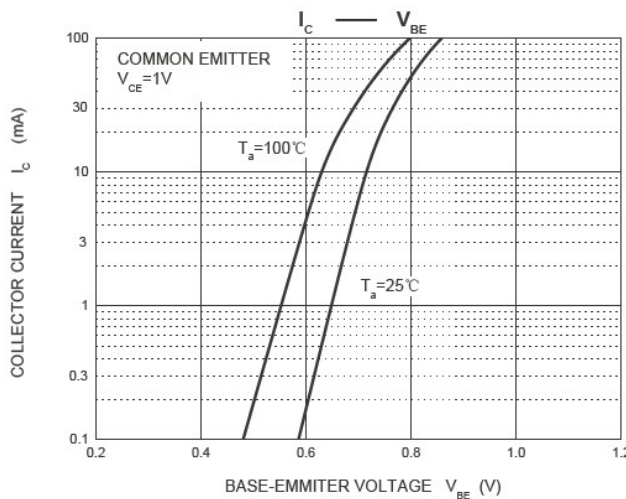
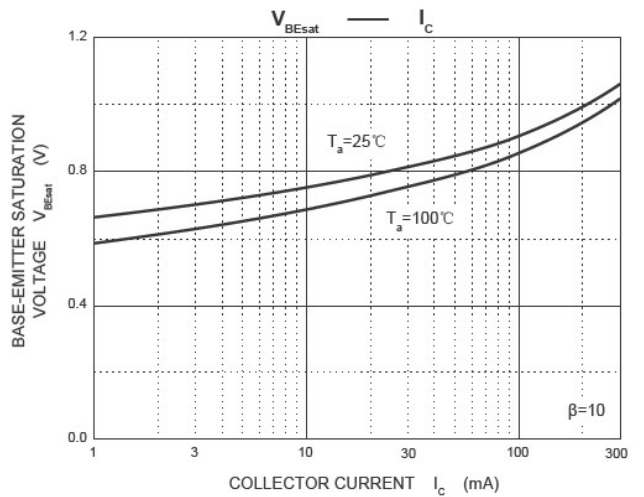
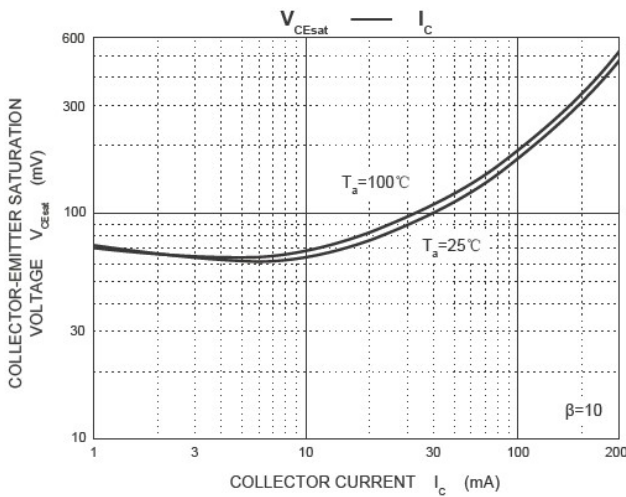
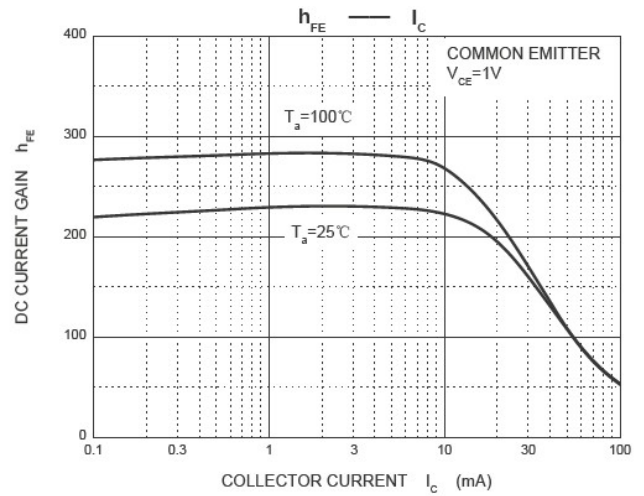
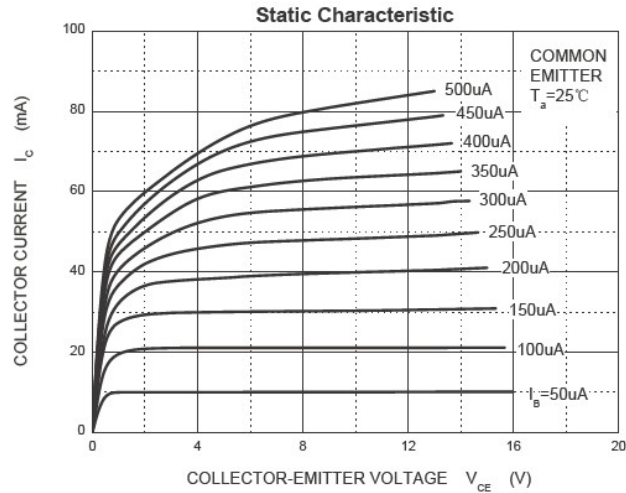
MAXIMUM RATINGS ($T_A=25^{\circ}\text{C}$ unless otherwise noted)

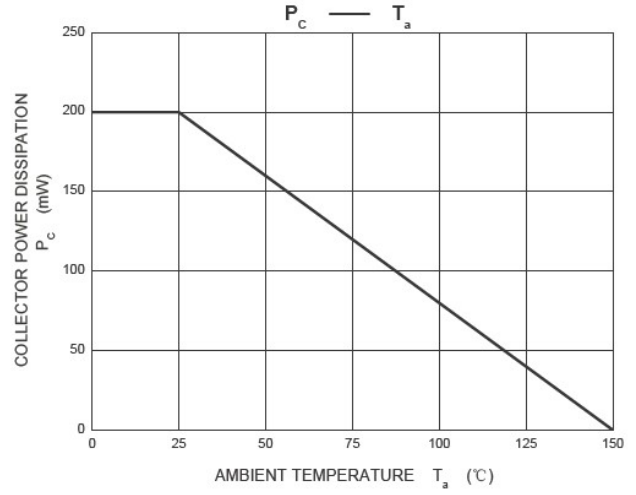
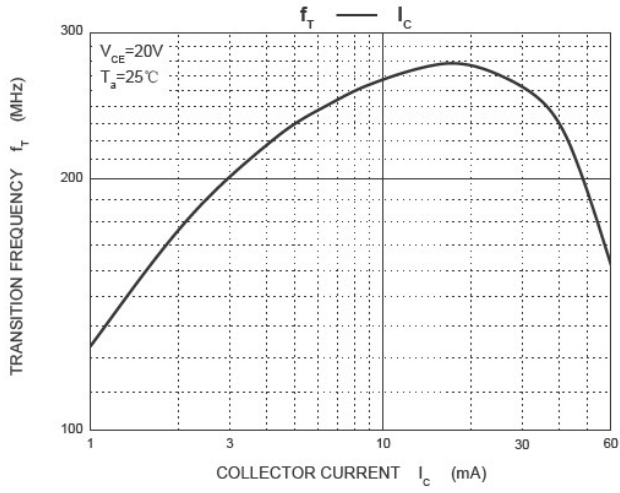
Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	60	V
V_{CEO}	Collector-Emitter Voltage	40	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current -Continuous	200	mA
P_C	Collector Power Dissipation	200	mW
T_j	Junction Temperature	150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature	-55-+150	$^{\circ}\text{C}$
$R_{\theta JA}$	Thermal resistance From junction to ambient	625	$^{\circ}\text{C/W}$

ELECTRICAL CHARACTERISTICS ($T_{amb}=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=10\mu\text{A}, I_E=0$	60			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=1\text{mA}, I_B=0$	40			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=10\mu\text{A}, I_C=0$	6			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	h_{FE}	$V_{CE}=1\text{V}, I_C=10\text{mA}$ $V_{CE}=1\text{V}, I_C=50\text{mA}$ $V_{CE}=1\text{V}, I_C=100\text{mA}$	100 60 30		300	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=50\text{mA}, I_B=5\text{mA}$			0.3	V
Collector-emitter saturation voltage	$V_{BE(sat)}$	$I_C=50\text{mA}, I_B=5\text{mA}$			0.95	V
Collector output capacitance	C_{ob}	$V_{CB}=5\text{V}, I_E=0, f=1\text{MHz}$			4	pF
Collector output capacitance	C_{ib}	$V_{CB}=0.5\text{V}, I_C=0, f=1\text{MHz}$			8	pF
Transition frequency	f_T	$V_{CE}=20\text{V}, I_C=10\text{mA}, f=100\text{MHz}$	300			MHz

Typical characteristics





PACKAGE OUTLINE

Plastic surface mounted package; 3 leads

SOT-23

