

-40V PNP SMALL SIGNAL TRANSISTOR

Features

- ✧ Epitaxial Planar Die Construction
- ✧ Totally Lead-Free & Fully RoHS compliant
- ✧ Halogen and Antimony Free
- ✧ PNP

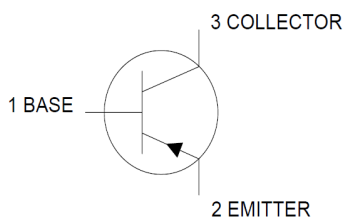
V_{CBO}	-40V
V_{CEO}	-40V
V_{EBO}	-5.0V
I_c	-200mA

Applications

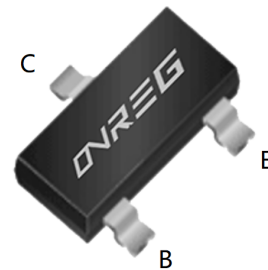
- ✧ Medium Power Amplification and Switching

Mechanical Data

- ✧ Package : SOT-23



Circuit Diagram



SOT-23

Absolute Maximum Rating ($T_a=25^{\circ}\text{C}$, unless otherwise noted)

Parameters	Symbol	Value	Unit
Collector-Base Voltage	V_{CBO}	-40	V
Collector-Emitter Voltage	V_{CEO}	-40	V
Emitter -Base Voltage	V_{EBO}	-5	V
Collector Current-Continuous	I_c	-200	mA
Collector Power Dissipation	P_c	200	mW
Junction Temperature	T_j	150	$^{\circ}\text{C}$
Storage Temperature	T_{stg}	-55-+150	$^{\circ}\text{C}$
Thermal resistance From junction to ambient	$R_{\theta JA}$	625	$^{\circ}\text{C/W}$

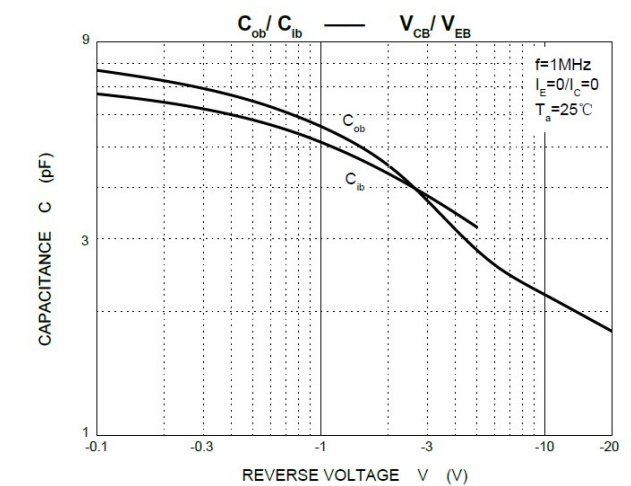
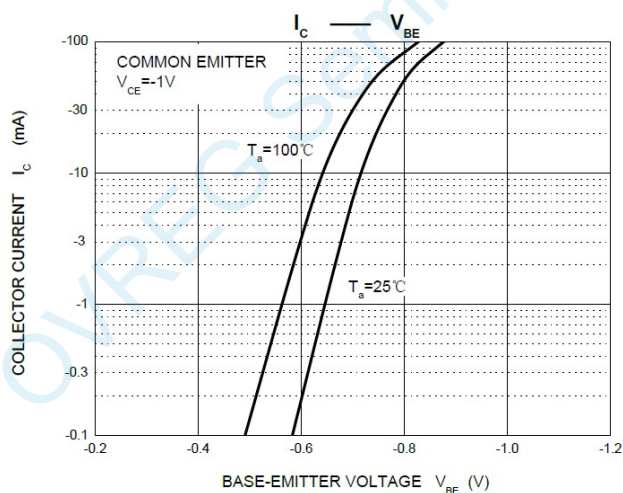
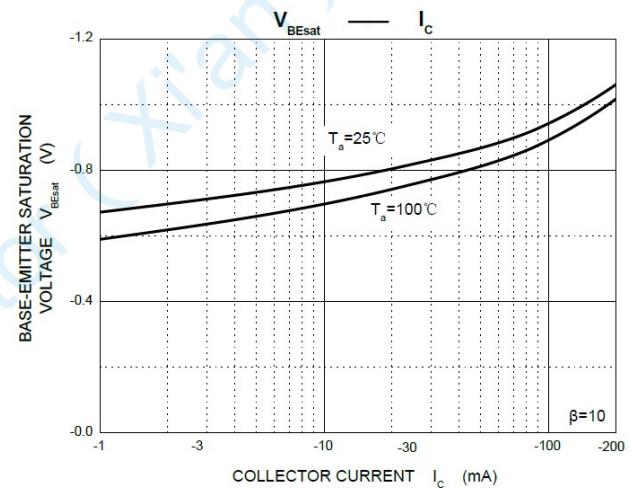
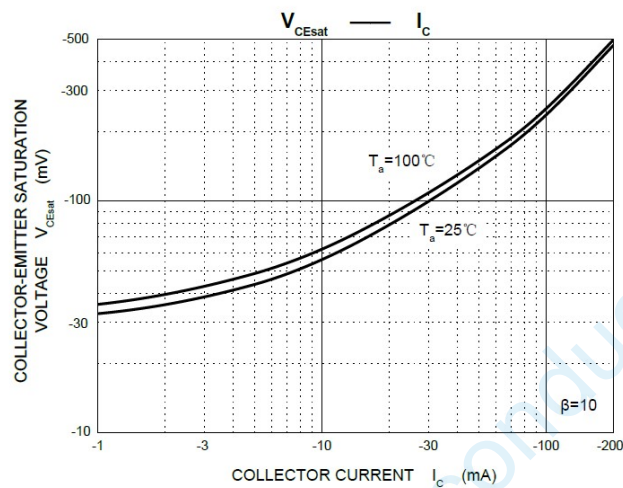
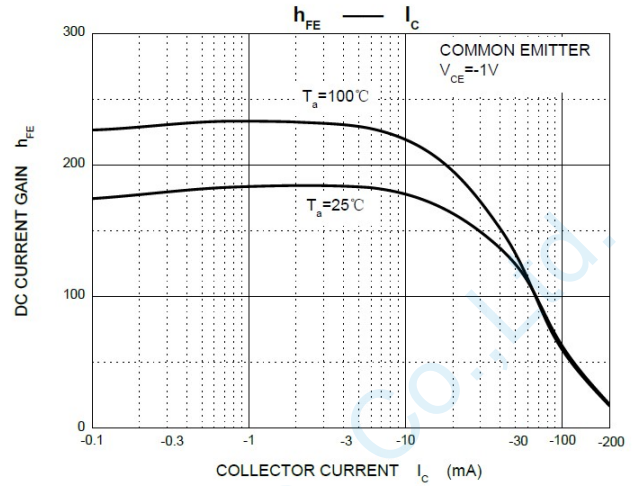
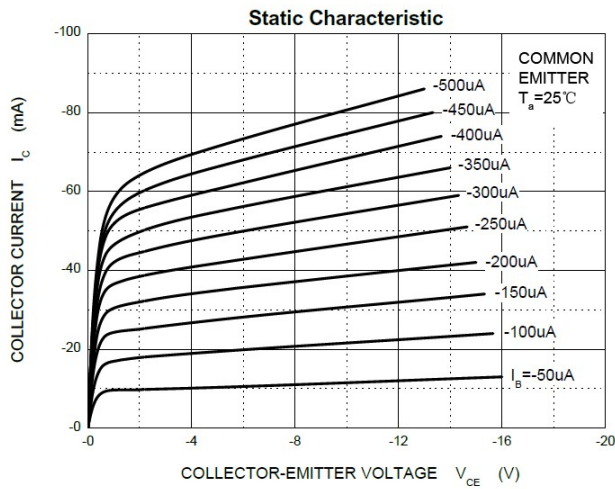
Electronics Characteristics (Ta=25℃, unless otherwise noted)

Parameter	Symbols	Test Condition	Limits		Unit
			Min	Max	
Collector-base breakdown voltage	V(BR)CBO	IC=-10uA, IE=0	-40		V
Collector-emitter breakdown voltage	V(BR)CEO	IC=-1mA, IB=0	-40		V
Emitter-base breakdown voltage	V(BR)EBO	IE=-10uA, IC=0	-5		V
Collector cut-off current	ICEX	VCE=-30V, VEB(off)=-3V		-100	nA
Collector cut-off current	ICBO	VCB=-40V, IE=0		-50	nA
Emitter cut-off current	IEBO	VEB=-5V, IC=0		-50	nA
DC current gain	hFE(1)	VCE=-1V, IC=-10mA	100	300	
	hFE(2)	VCE=-1V, IC=-50mA	60		
	hFE(3)	VCE=-1V, IC=-100mA	30		
Collector-emitter saturation voltage	VCE(sat)1	IC=-50mA, IB=-5mA		-0.30	V
Base-emitter saturation voltage	VBE(sat)	IC=-50mA, IB=-5mA		-0.95	V
Transition frequency	fT	VCE=-20V, IC=-10mA, f=100MHz	300		MHz
Delay time	td	VCC=-3V, VBE(off)=-0.5V, IC=-10mA, IB1=-1mA		35	nS
Rise time	tr	VCC=-3V, VBE(off)=-0.5V, IC=-10mA, IB1=-1mA		35	nS
Storage time	ts	VCC=-3V, IC=-10mA, IB1=IB2=-1mA		225	nS
Fall time	tf	VCC=-3V, IC=-10mA, IB1=IB2=-1mA		75	nS

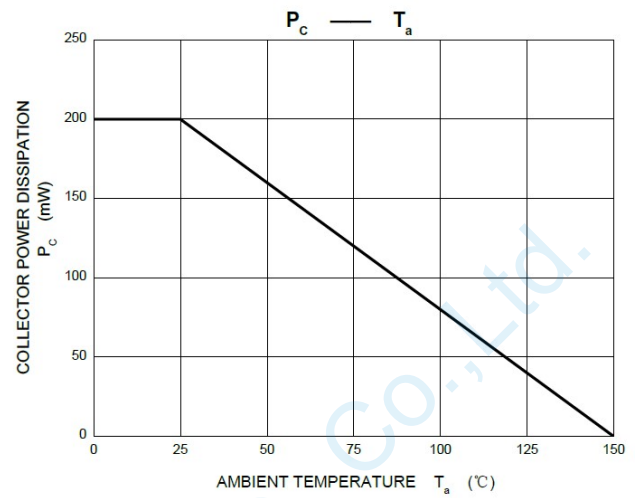
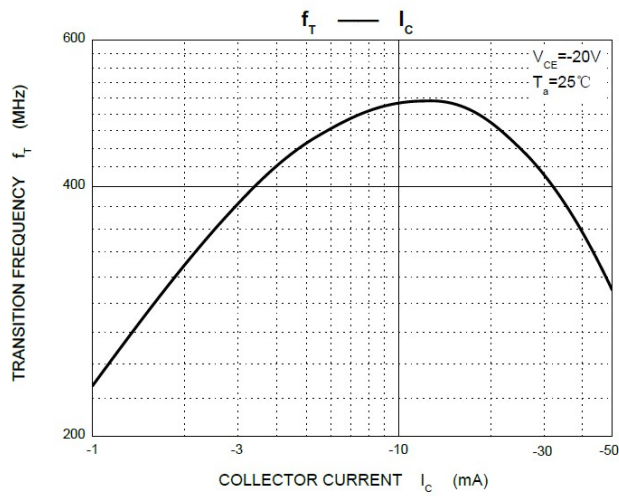
CLASSIFICATION OF hFE(1)

HFE	100-300	
RANK	L	H
RANGE	100-200	200-300

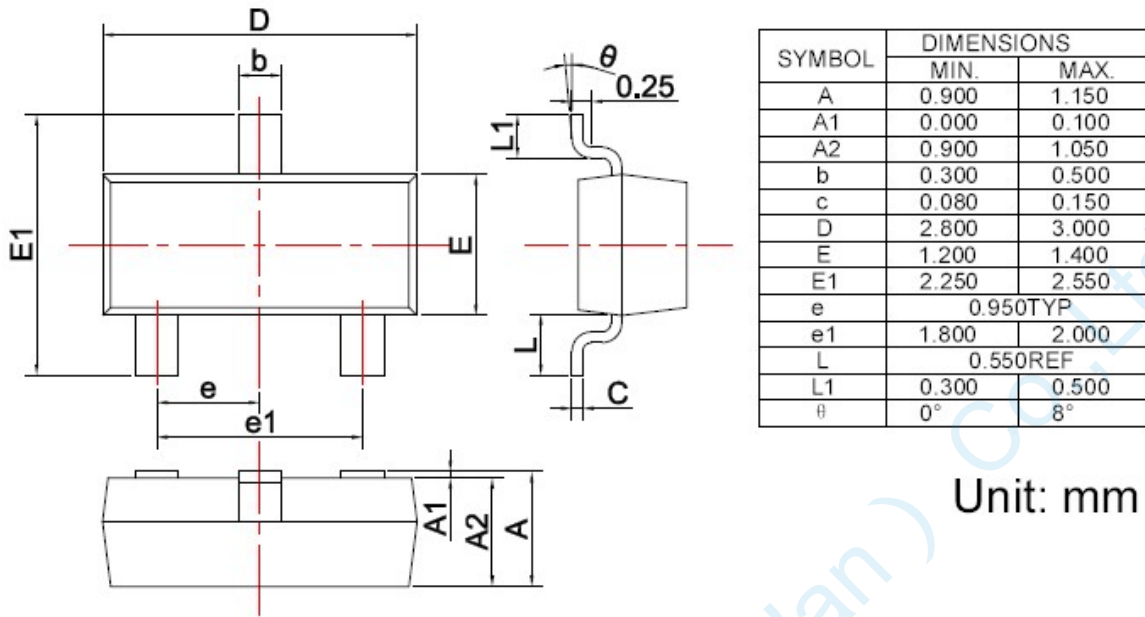
Electronics Characteristics (Ta=25℃, unless otherwise noted)



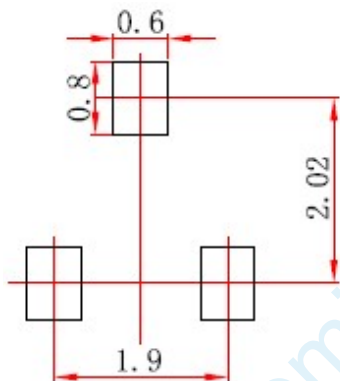
Electronics Characteristics (Ta=25°C, unless otherwise noted)



Package information



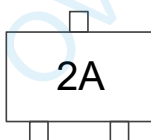
Recommend PCB Layout



Note:

1. Controlling dimension: in millimeters.
2. General tolerance: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.

Marking



Ordering Information

Part number	Material	Type	Reel size	MOQ
OVS3906ST3R	GREEN	T/R	7 inch	3k/reel