

80V NPN SMALL SIGNAL TRANSISTOR

Features

- ✧ For switching and amplifier applications
- ✧ Surface Mount device
- ✧ NPN

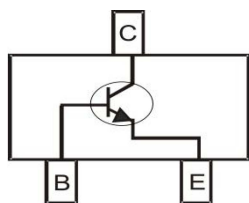
V_{CBO}	80V
V_{CEO}	80V
V_{EBO}	4V
I_C	500mA

Applications

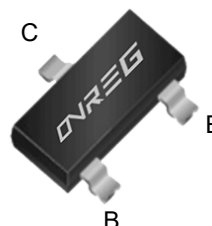
- ✧ Medium Power Amplification and Switching

Mechanical Data

- ✧ Package : SOT-23



Circuit Diagram



SOT-23

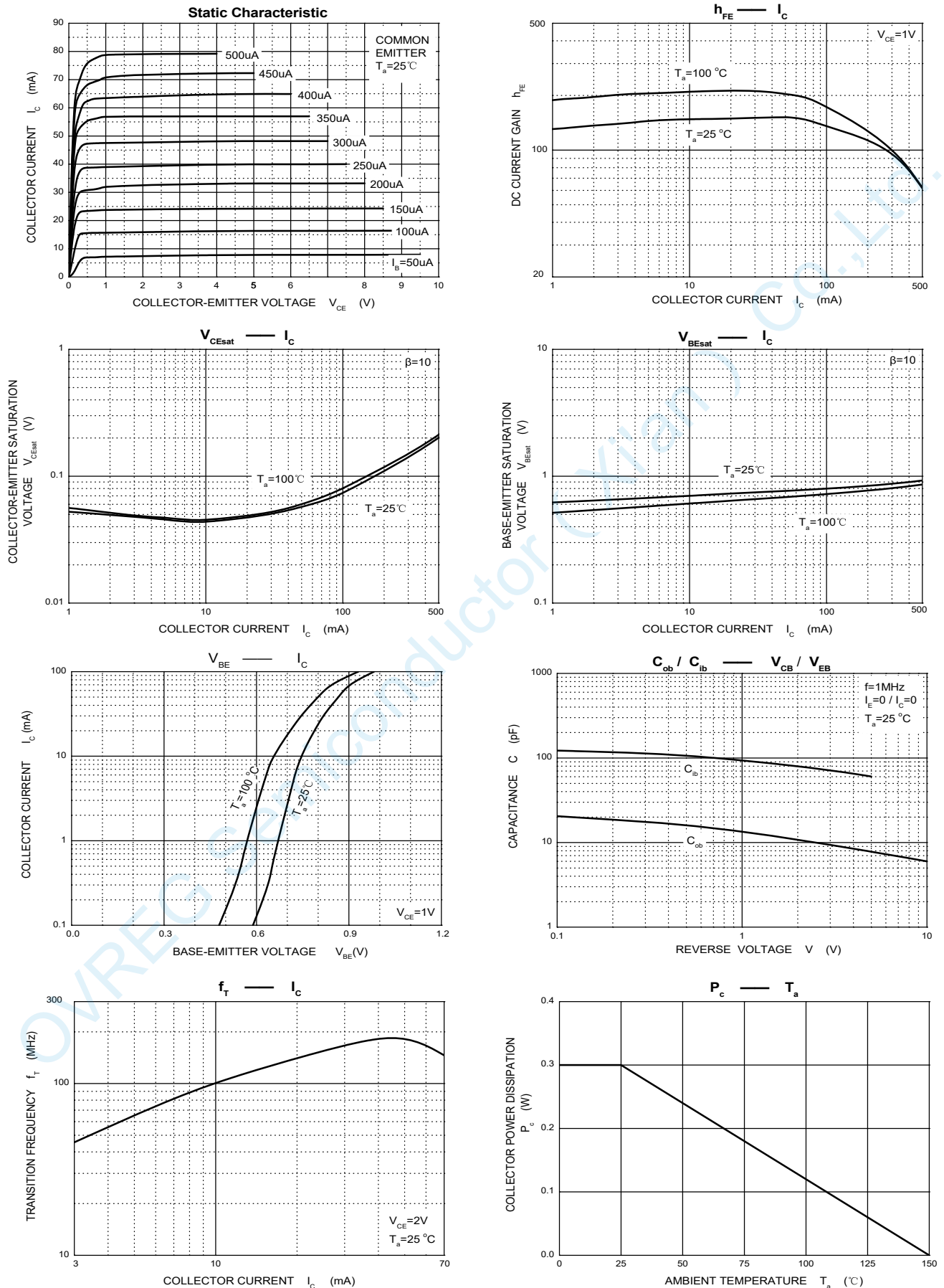
Absolute Maximum Rating ($T_a=25^{\circ}\text{C}$, unless otherwise noted)

Parameter	Symbol	Value	Unit
Collector to Base Voltage	V_{CBO}	80	V
Collector to Emitter Voltage	V_{CEO}	80	V
Emitter to Base Voltage	V_{EBO}	4	V
Collector Current DC	I_C	500	mA
Collector Power Dissipation	P_C	300	mW
Thermal Resistance From Junction To Ambient	R_{eJA}	416	$^{\circ}\text{C/W}$
Junction Temperature	T_J	150	$^{\circ}\text{C}$
Storage Temperature	T_{STG}	-55~ +150	$^{\circ}\text{C}$

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

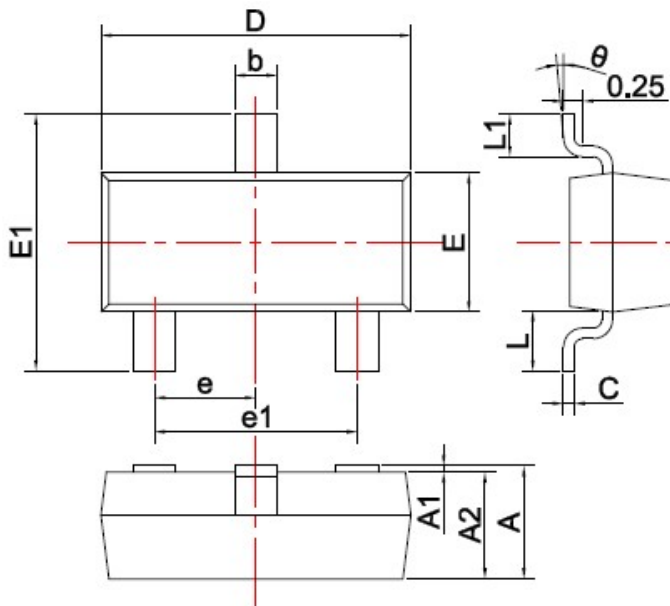
Parameter	Symbols	Test Condition	Limits		Unit
			Min	Max	
Collector-base breakdown voltage	V(BR)CBO	IC=100uA, IE=0	80		V
Collector-emitter breakdown voltage	V(BR)CEO	IC=1mA, IB=0	80		V
Emitter-base breakdown voltage	V(BR)EBO	IE=100uA, IC=0	4		V
Collector cut-off current	ICBO	VCB=80V, IE=0		0.1	uA
Emitter cut-off current	ICEO	VCE=80V, IE=0		1	uA
Collector cut-off current	IEBO	VEB=3V, IC=0		0.1	uA
DC current gain	hFE1	VCE=1V, IC=10mA	100	400	
	hFE2	VCE=1V, IC=100mA	100		
Collector-emitter saturation voltage	VCE(sat)	IC=100mA, IB=10mA		0.25	V
Base -emitter saturation voltage	VBE(sat)	IC=100mA, IB=10mA		1.2	V
Transition frequency	fr	VCE=2V, IC=10mA, f=100MHz	100		MHz

Electronics Characteristics ($T_a=25^\circ\text{C}$, unless otherwise noted)



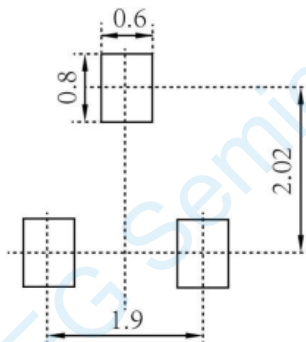
Package information

SOT-23



Symbol	Dimensions In Millimeters	
	Min.	Max.
A	0.900	1.150
A1	0.000	0.100
A2	0.900	1.050
b	0.300	0.500
c	0.080	0.150
D	2.800	3.000
E	1.200	1.400
E1	2.250	2.550
e	0.950 TYP	
e1	1.800	2.000
L	0.550 REF	
L1	0.300	0.500
θ	0°	8°

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
OVS2206T	GREEN	T/R	7 inch	3k/reel