

-60V PNP SMALL SIGNAL TRANSISTOR

Features

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

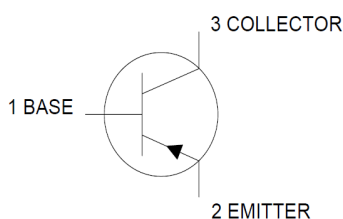
V_{CBO}	-60V
V_{CEO}	-60V
V_{EBO}	-5V
I_C	-600mA

Applications

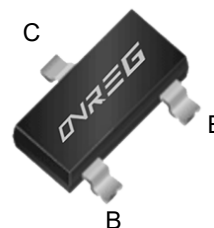
- ✧ Medium Power Amplification and Switching

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}	-60	V
Collector to Emitter Voltage	V_{CEO}	-60	V
Emitter to Base Voltage	V_{EBO}	-5	V
Collector Current DC	I_C	-600	mA
Collector Power Dissipation	P_D	250	mW
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)

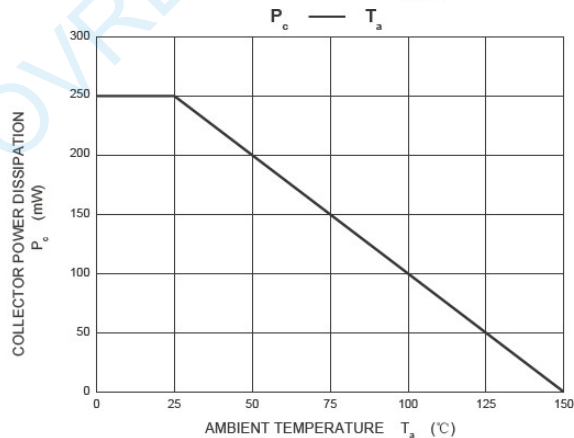
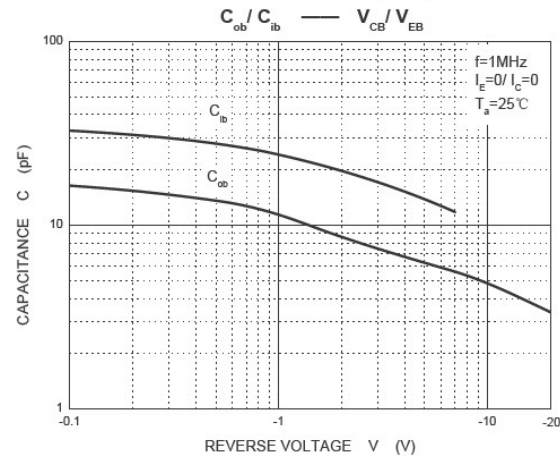
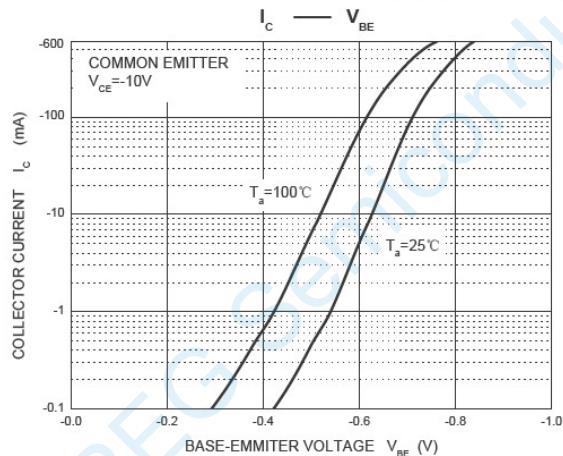
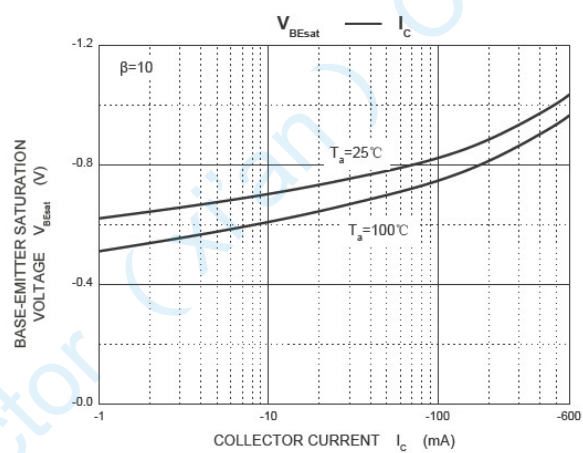
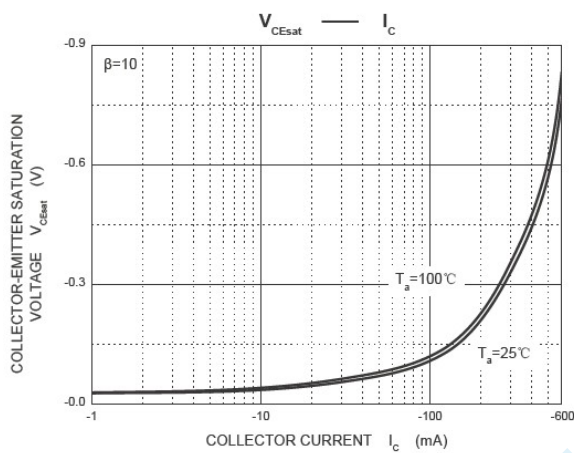
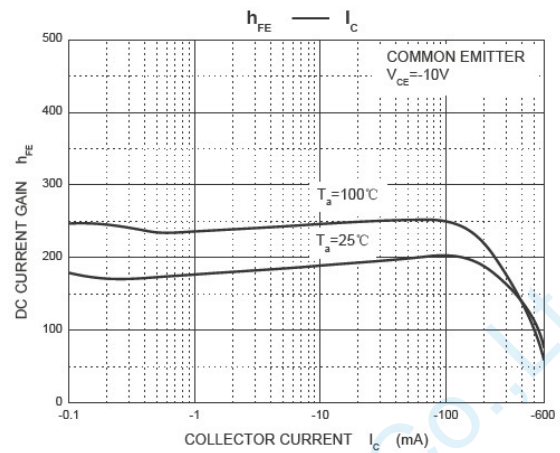
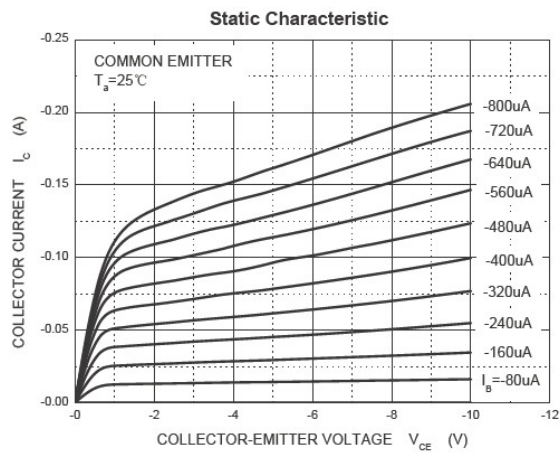
Parameter	Symbols	Test Condition	Limits		Unit
			Min	Max	
Collector-base breakdown voltage	V(BR)CBO	IC=-100uA, IE=0	-60		V
Collector-emitter breakdown voltage	V(BR)CEO *	IC=-1mA, IB=0	-60		V
Emitter-base breakdown voltage	V(BR)EBO	IE=-10uA, IC=0	-5		V
Collector cut-off current	ICBO	VCE=-50V, IE=0		-20	nA
Emitter cut-off current	IEBO	VEB=-3V, IC=0		-10	nA
Collector cut-off current	ICEX	VCE=-30V, VBE(off)=-0.5V		-50	nA
DC current gain	hFE(1) *	VCE=-10V, IC=-150mA	100	300	
	hFE(2) *	VCE=-10V, IC=-0.1mA	75		
	hFE(3) *	VCE=-10V, IC=-1mA	100		
	hFE(4) *	VCE=-10V, IC=-10mA	100		
	hFE(5) *	VCE=-10V, IC=-500mA	50		
Collector-emitter saturation voltage	VCE(sat)1 *	IC=-150mA, IB=-15mA		-0.4	V
	VCE(sat)2 *	IC=-500mA, IB=-50mA		-1.6	V
Base -emitter saturation voltage	VBE(sat)1 *	IC=-150mA, IB=-15mA		-1.30	V
	VBE(sat)2 *	IC=-500mA, IB=-50mA		-2.60	V
Transition frequency	ft	VCE=-20V, IC=-50mA, f=100MHz	200		MHz
Delay time	td	VCE=-30V, IC=-150mA, IB1=-15mA		10	nS
Rise time	tr			25	nS
Storage time	ts	VCE=-6V, IC=-150mA, IB1=IB2=-15mA		225	nS
Fall time	tf			60	nS

*Pulse test: pulse width ≤ 300us, duty cycle ≤ 2.0%

CLASSIFICATION OF hFE(1)

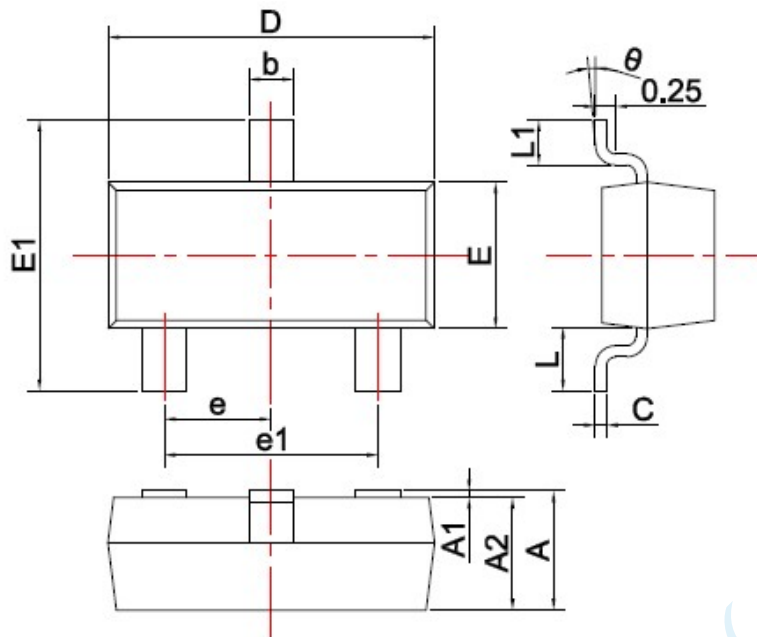
HFE	100-300	
RANK	L	H
RANGE	100-200	200-300

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



Package information

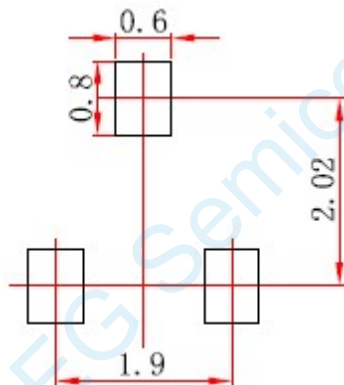
SOT-23



SYMBOL	DIMENSIONS	
	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	0.950TYP	
e1	1.800	2.000
L	0.550REF	
L1	0.300	0.500
θ	0°	8°

Unit: mm

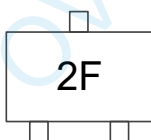
Recommend PCB Layout



Note:

1. Controlling dimension: in millimeters.
2. General tolerance: ± 0.05 mm.
3. The pad layout is for reference purposes only.

Marking



Ordering Information

Part number	Material	Type	Reel size	MOQ
OVS2907T	GREEN	T/R	7 inch	3k/reel