



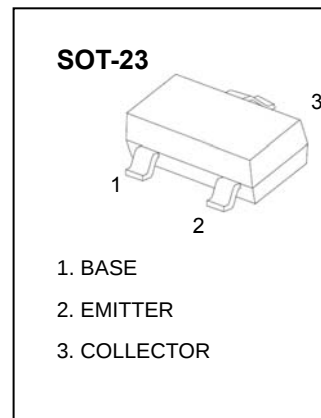
SOT-23 Plastic-Encapsulate Transistor (PNP)

Feature

- Low noise
- Complementary to 2SC2712
- Small Package

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

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	-50	V
V_{CEO}	Collector-Emitter Voltage	-50	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_{C}	Collector Current	-150	mA
P_{C}	Collector Power Dissipation	150	mW
$R_{\theta\text{JA}}$	Thermal Resistance From Junction To Ambient	833	$^{\circ}\text{C}/\text{W}$
$T_{\text{J}}, T_{\text{stg}}$	Operation Junction and Storage Temperature Range	-55~+150	$^{\circ}\text{C}$



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

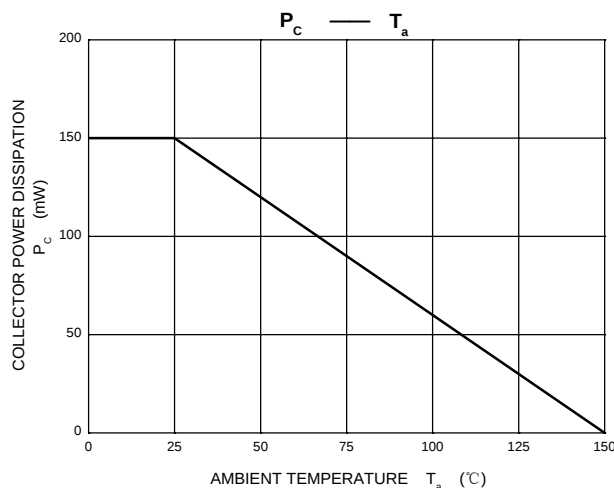
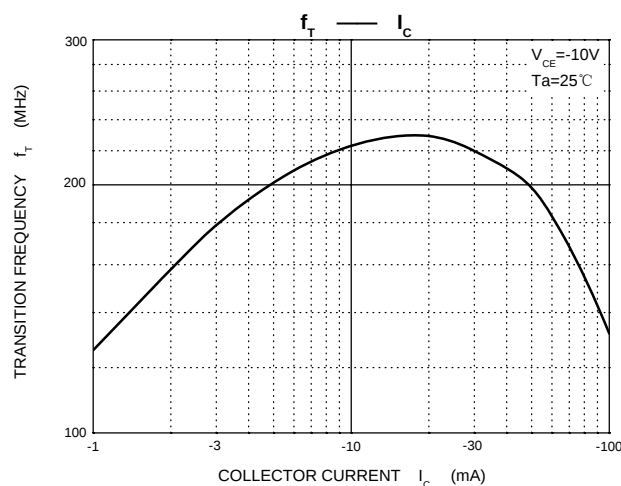
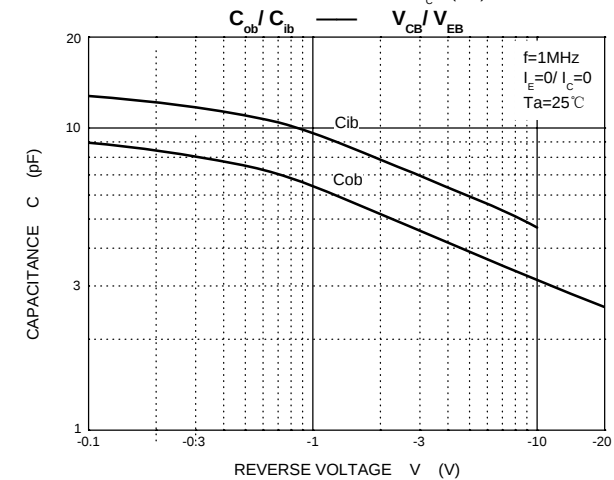
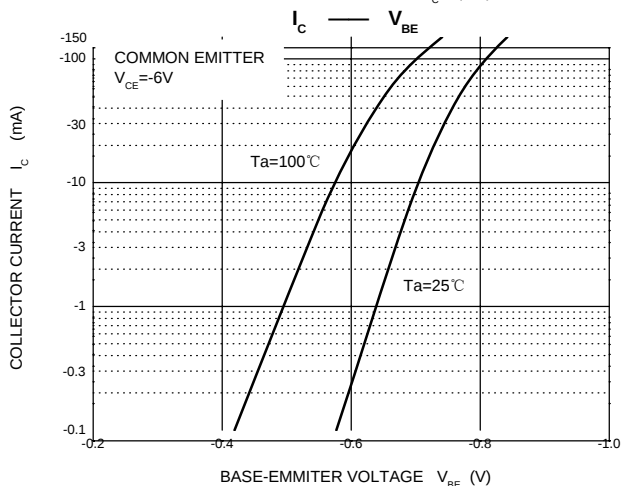
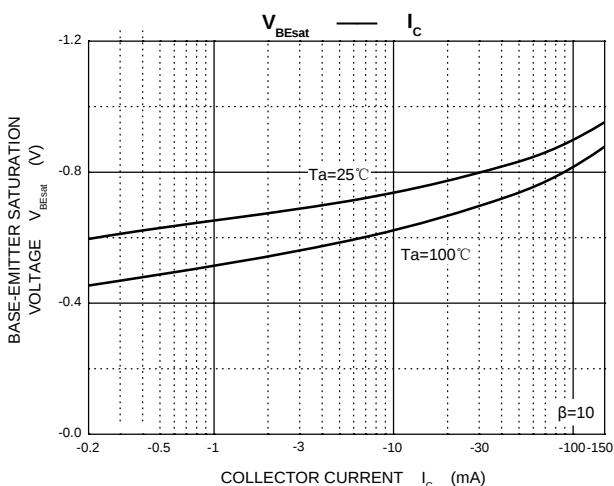
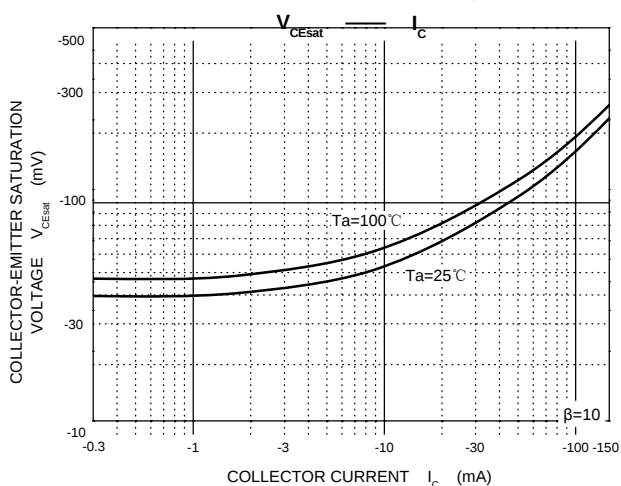
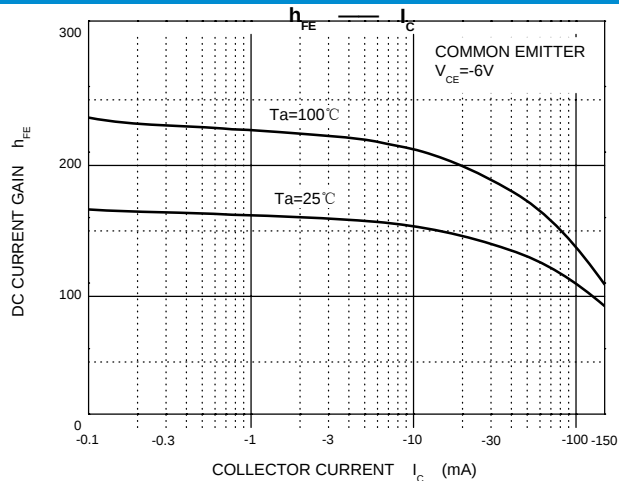
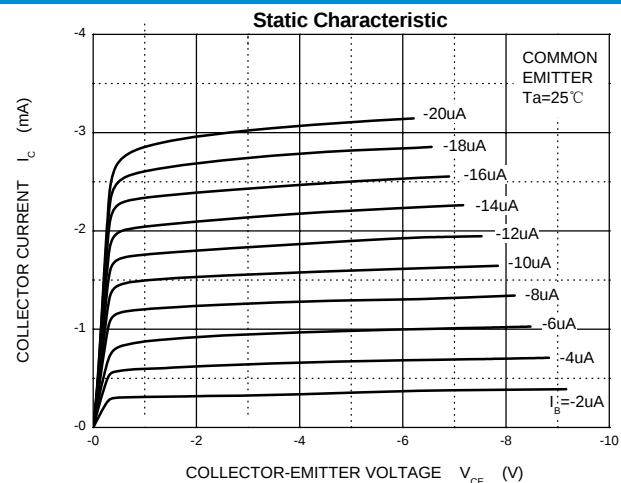
Parameter	Symbol	Test condition	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(\text{BR})\text{CBO}}$	$I_{\text{C}}=-100\mu\text{A}, I_{\text{E}}=0$	-50			V
Collector-emitter breakdown voltage	$V_{(\text{BR})\text{CEO}}$	$I_{\text{C}}=-1\text{mA}, I_{\text{B}}=0$	-50			V
Emitter-base breakdown voltage	$V_{(\text{BR})\text{EBO}}$	$I_{\text{E}}=-100\mu\text{A}, I_{\text{C}}=0$	-5			V
Collector cut-off current	I_{CBO}	$V_{\text{CB}}=-50\text{V}, I_{\text{E}}=0$			-0.1	μA
Emitter cut-off current	I_{EBO}	$V_{\text{EB}}=-5\text{V}, I_{\text{C}}=0$			-0.1	μA
DC current gain	h_{FE}	$V_{\text{CE}}=-6\text{V}, I_{\text{C}}=-2\text{mA}$	70		400	
Collector-emitter saturation voltage	$V_{\text{CE(sat)}}$	$I_{\text{C}}=-100\text{mA}, I_{\text{B}}=-10\text{mA}$			-0.3	V
Transition frequency	f_{T}	$V_{\text{CE}}=-10\text{V}, I_{\text{C}}=-1\text{mA}$	80			MHz
Collector output capacitance	C_{ob}	$V_{\text{CB}}=-10\text{V}, I_{\text{E}}=0, f=1\text{MHz}$			7	pF
Noise figure	NF	$V_{\text{CE}}=-6\text{V}, I_{\text{C}}=0.1\text{mA}, f=1\text{KHz}, R_{\text{g}}=10\text{K}\Omega$			10	dB

Classification of h_{FE}

Rank	2SA1162-O	2SA1162-Y	2SA1162-GR(G)
Range	70~140	120~240	200~400
Marking	SO	SY	SG

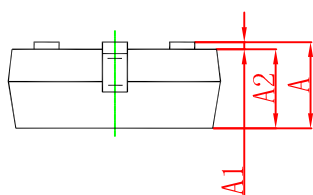
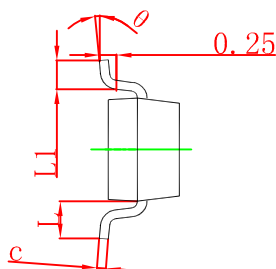
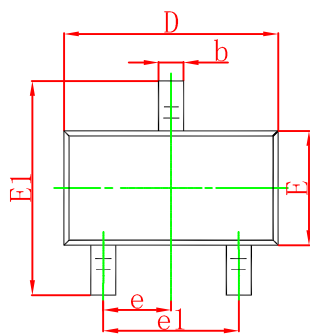


Typical Characteristics



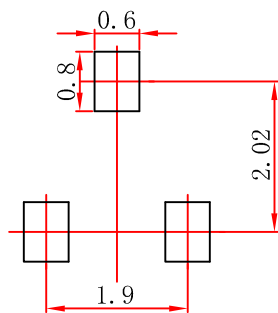


SOT-23 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.080	0.150	0.003	0.006
D	2.800	3.000	0.110	0.118
E	1.200	1.400	0.047	0.055
E1	2.250	2.550	0.089	0.100
e	0.950 TYP		0.037 TYP	
e1	1.800	2.000	0.071	0.079
L	0.550 REF		0.022 REF	
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°

SOT-23 Suggested Pad Layout



Notes:

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