

SOT-23 Plastic-Encapsulate Transistors

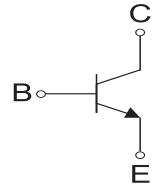
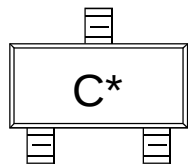
2SC2411

TRANSISTOR (NPN)

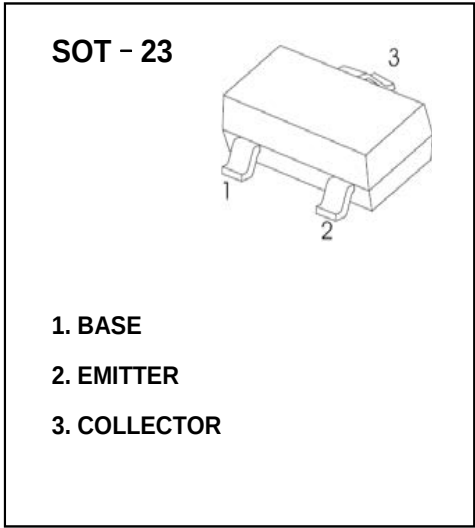
FEATURES

- Complementary To 2SA1036 (PNP)

MARKING Equivalent Circuit



HFE	82-390		
RANGE	82-180	120-270	180-390
MARKING	CP	CQ	CR



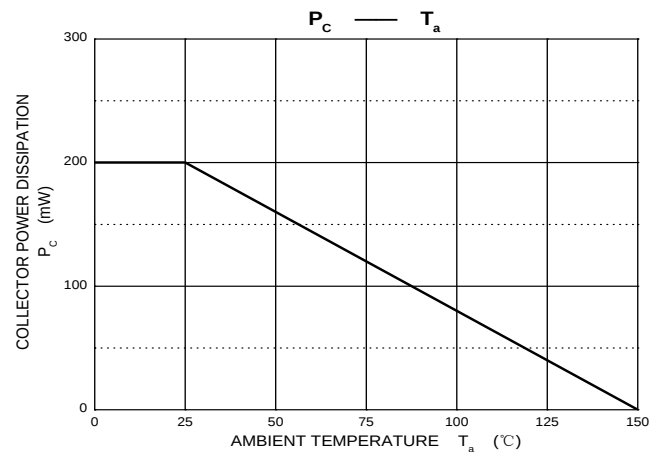
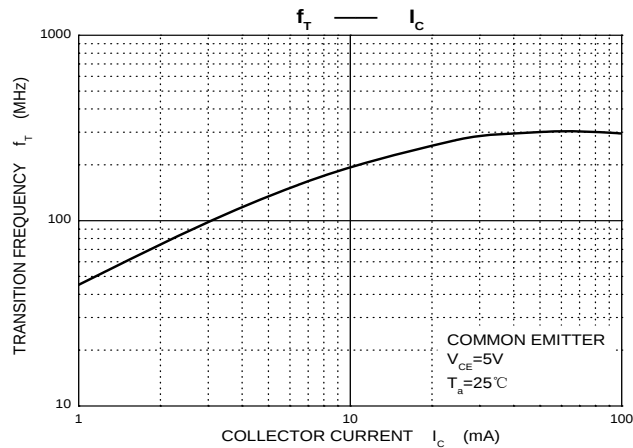
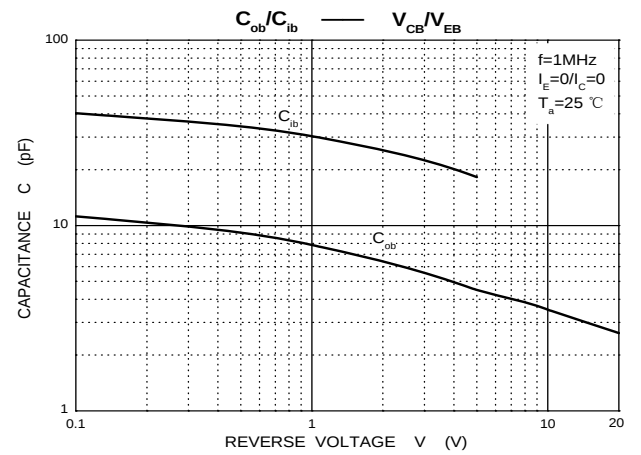
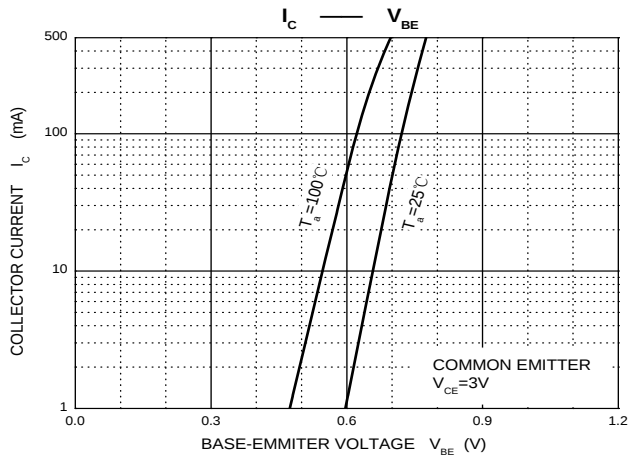
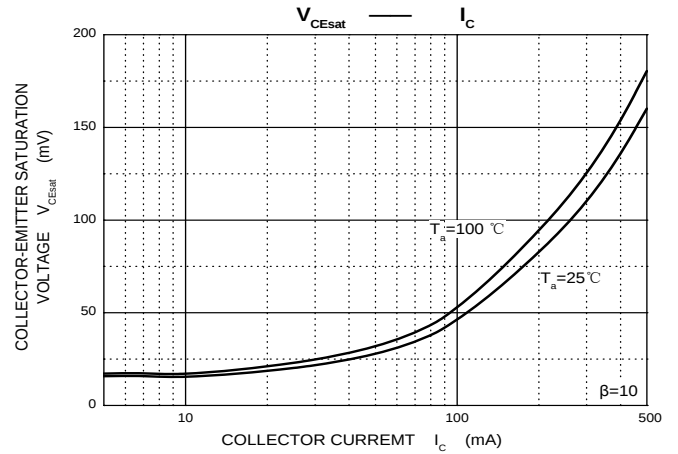
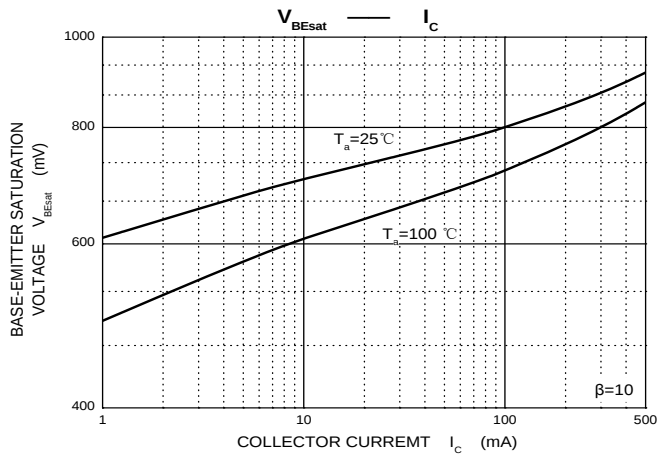
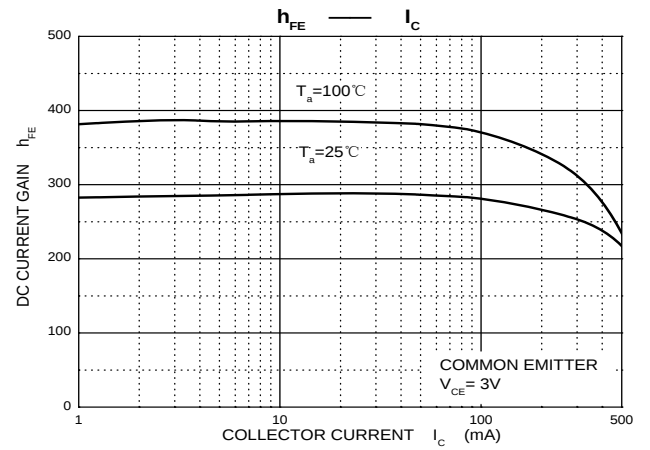
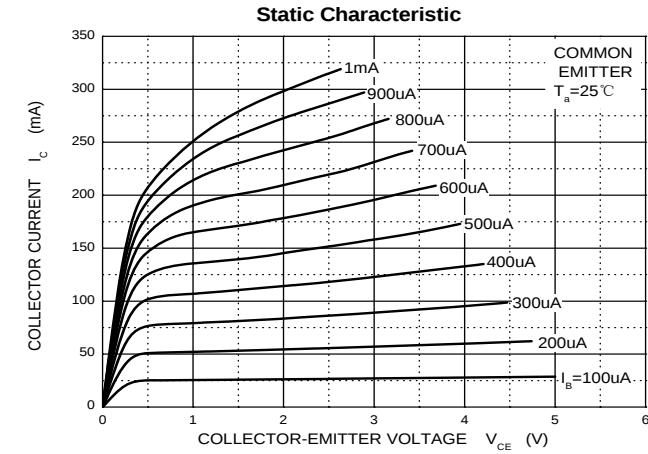
MAXIMUM RATINGS (Ta=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V _{CB0}	Collector-Base Voltage	40	V
V _{CEO}	Collector-Emitter Voltage	32	V
V _{EBO}	Emitter-Base Voltage	5	V
I _C	Collector Current	500	mA
P _C	Collector Power Dissipation	200	mW
T _J ,T _{stg}	Operation Junction and Storage Temperature Range	-55-150	°C

ELECTRICAL CHARACTERISTICS (Ta=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V _{(BR)CBO}	I _C =100μA,I _E =0	40			V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C =1mA,I _B =0	32			V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E =100μA,I _C =0	5			V
Collector cut-off current	I _{CBO}	V _{CB} =20V,I _E =0			1	μA
Emitter cut-off current	I _{EBO}	V _{EB} =4V,I _C =0			1	μA
DC current gain	h _{FE}	V _{CE} =3V,I _C =100mA	82		390	
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =500mA,I _B =50mA			0.4	V
Transition frequency	f _T	V _{CE} =5V,I _C =20mA,f=100MHz		250		MHz
Collector output capacitance	C _{ob}	V _{CB} =10V,I _E =0,f=1MHz		6.0		pF

Typical Characteristics



Package Outline Dimensions (SOT-23)



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°

Suggested Pad Layout (SOT-23)



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