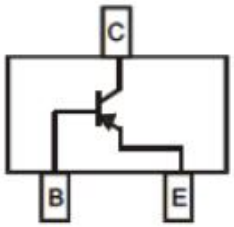
isc Silicon PNP Power Transistor 2N3906S

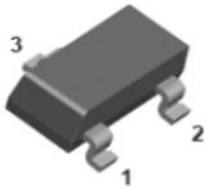
DESCRIPTION

- Low voltage(max .40V)
- Low current (max .200mA)

APPLICATIONS

- Designed for high-speed switching
- Amplifier applications.





SOT-23

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-40	V
V_{CEO}	Collector-Emitter Voltage	-40	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current-Continuous	-200	mA
P_{tot}	Total Power Dissipation	300	mW
T_J	Junction Temperature	-55~150	℃
T_{stg}	Storage Temperature	-55~150	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}a}$	thermal resistance from junction to ambient	250	K/W

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{(BR)CBO}$	Collector-base breakdown voltage	I_C=-10mA, I_E=0	-40		V
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	I_C= -1mA , I_B=0	-40		V
$V_{(BR)EBO}$	Emitter-base breakdown voltage	I_E= -10mA, I_C=0	-5		V
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage	I_C= -10mA; I_B= -1mA		-0.25	V
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage	I_C= -50mA; I_B= -5mA		-0.4	V
$V_{BE(sat)1}$	base-emitter saturation voltage	I_C= -10mA; I_B=-1mA		-0.85	V
$V_{CE(sat)2}$	Collector-Emitter Saturation Voltage	I_C= -50mA; I_B= -5mA		-0.95	V
I_{CBO}	collector cut-off current	V_{CB} = -40 V,I_E = 0		-0.1	μA
I_{EBO}	Emitter Cutoff Current	V_{EB}= -5V; I_C=0		-0.1	μA
h_{FE-1}	DC Current Gain	I_C= -0.1 mA ; V_{CE}= -1V	60		
h_{FE-2}	DC Current Gain	I_C=- 1 mA ; V_{CE}=-1V	80		
h_{FE-3}	DC Current Gain	I_C= -10 mA ; V_{CE}=-1V	100	300	
h_{FE-4}	DC Current Gain	I_C= -50 mA ; V_{CE}=-1V	60		
h_{FE-5}	DC Current Gain	I_C=-100 mA ; V_{CE}=-1V	30		
C_{ob}	Output Capacitance	V_{CB}=-5.0Vdc, f=1.0MHz, IE=0		4.5	pF
NF	Noise Figure	VCE=-5.0V, f=1.0kHz, I_C=100uA, RS=1.0K		4.0	dB

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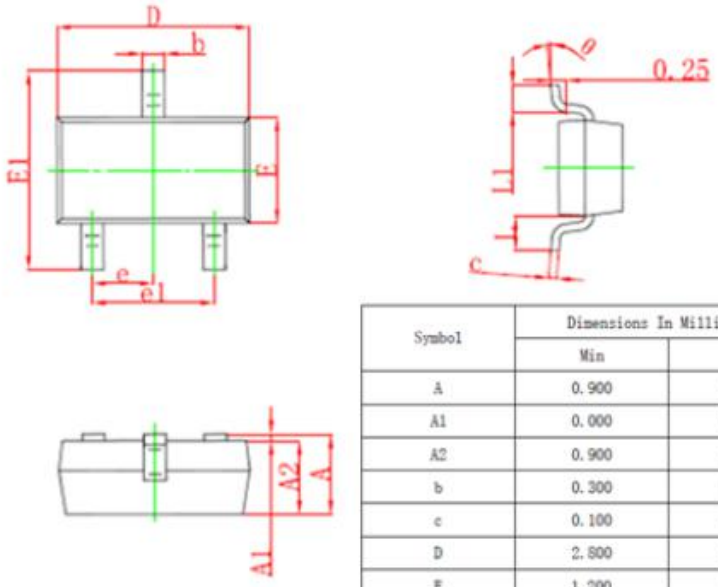
■SOT-23 Package Outline Dimensions



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	0.100	0.200	0.004	0.008
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	0.950TYP		0.037TYP	
e1	1.800	2.000	0.071	0.079
L	0.550REF		0.022REF	
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°

■SOT-23Suggested Pad Layout