

SOT-323 top view



Equivalent Circuit

 1.BASE
 2.EMITTER
 3.COLLECTOR

Features

- ◆ Ideally suited for automatic insertion
- ◆ For Switching and AF Amplifier Applications

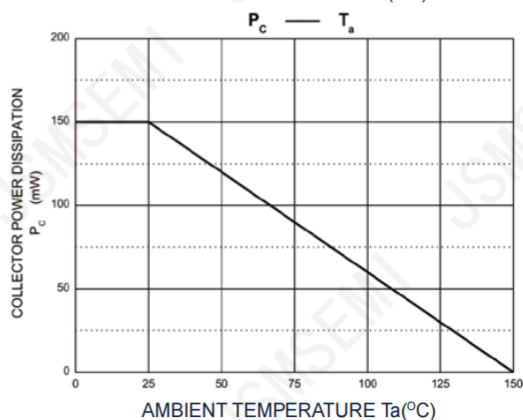
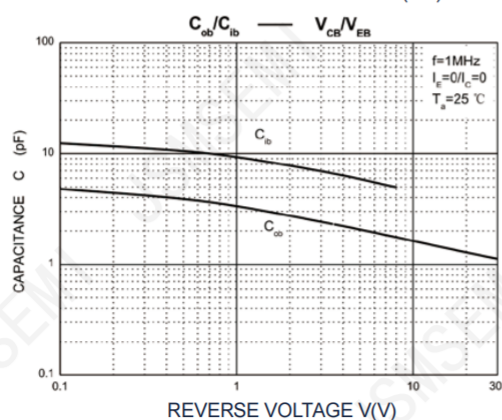
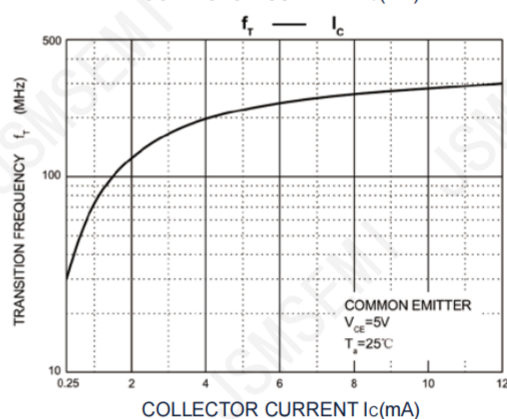
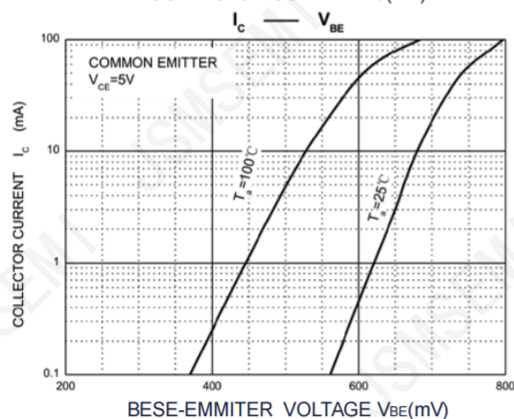
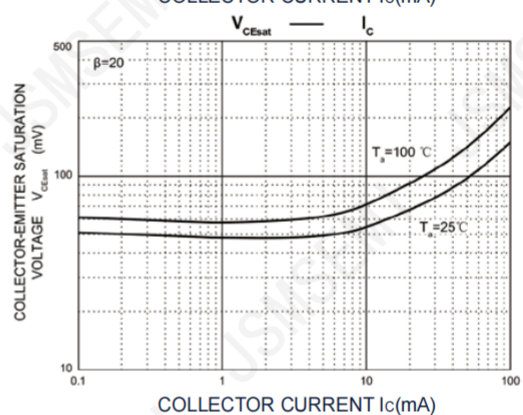
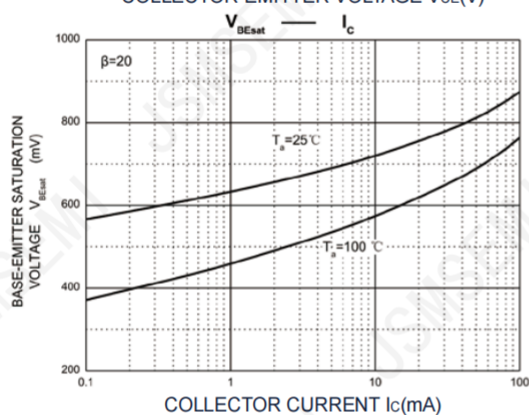
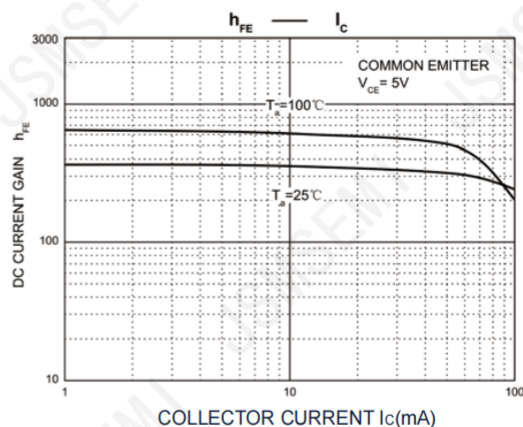
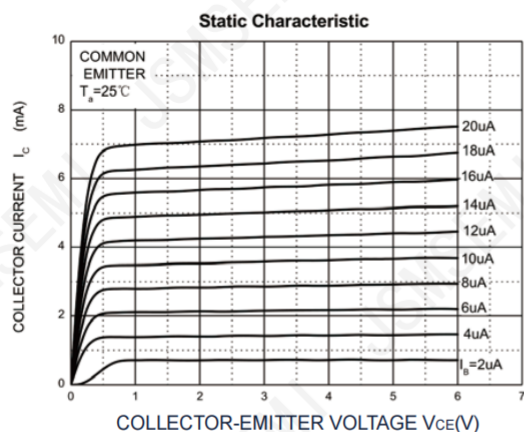
Absolute Maximum Ratings(TA=25℃)

Symbol	Parameter	Value	Uniat
V _{CB0}	Collector-Base Voltage	80	V
V _{CE0}	Collector-Emitter Voltage	65	V
V _{EB0}	Emitter-Base Voltage	6	V
I _c	Collector Current	0.1	A
P _c	Collector Power Dissipation	150	mW
R _{θJA}	Thermal Resistance From Junction To Ambient	833	℃/W
T _J ,T _{stg}	Operation Junction And Storage Temperature Range	-55 ~ 150	℃

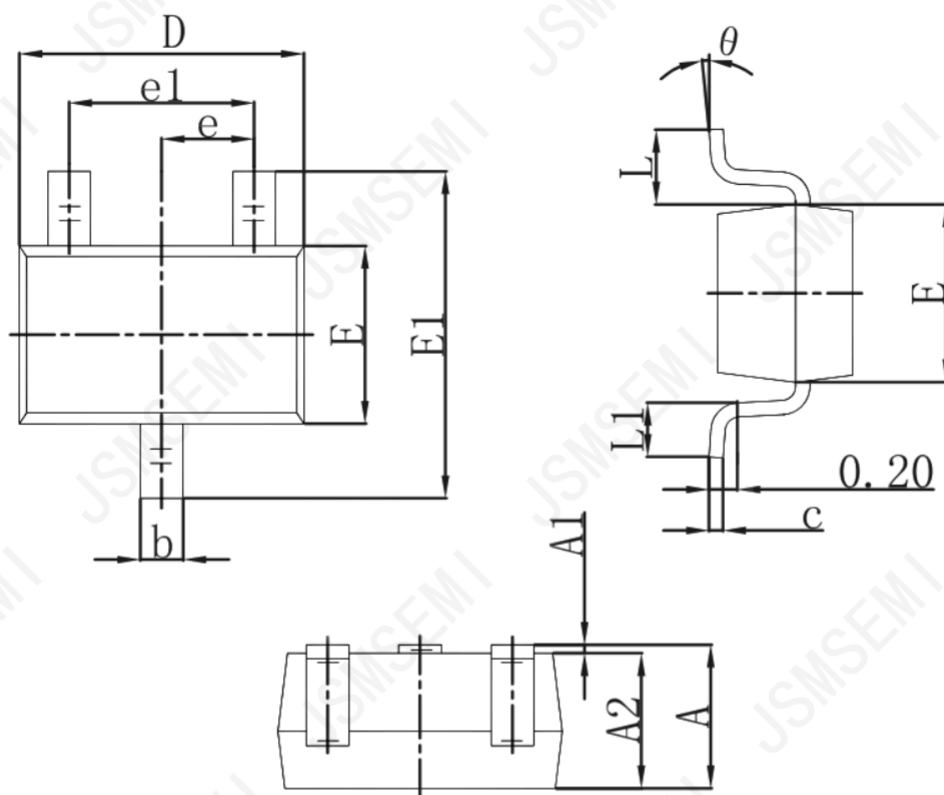
Electrical Characteristics (TA=25℃ unless otherwise specified)

Symbol	Parameter	Test conditions	Min	Typ	Max	Unit
V _{(BR)CBO}	Collector-base breakdown voltage	I _c =10μA, I _E =0	80			V
V _{(BR)CEO}	Collector-emitter breakdown voltage	I _c =10mA, I _B =0	65			V
V _{(BR)EBO}	Emitter-base breakdown voltage	I _E =1μA, I _C =0	6			V
I _{CBO}	Collector cut-off current	V _{CB} =30V			15	nA
h _{FE}	DC current gain	V _{CE} =5V, I _C =10μA		150		
		V _{CE} =5V, I _C =2mA	200		450	
V _{CE(sat)}	Collector-emitter saturation voltage	I _c =10mA, I _B =0.5mA			0.25	V
		I _c =100mA, I _B =5mA			0.6	
V _{BE(sat)}	Base-emitter saturation voltage	I _c =10mA, I _B =0.5mA		0.7		V
		I _c =100mA, I _B =5mA		0.9		
V _{BE(on)}	Base-emitter voltage	V _{CE} =5V, I _C =2mA	580	660	700	V
		V _{CE} =5V, I _C =10mA			770	
f _T	Transition frequency	V _{CE} =5V, I _C =10mA, f=100MHz	100			MHz
C _{ob}	Collector output capacitance	V _{CB} =10V, f=1MHz			4.5	pF
NF	Noise figure	V _{CE} =5V, I _C =0.2mA, f=1KHz, R _S =2KΩ BW=200Hz			10	dB

Typical Characteristics



Package Outline Dimensions



Symbol	Dimensions in Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.100	0.035	0.043
A1	0.000	0.100	0.000	0.004
A2	0.900	1.000	0.035	0.039
b	0.200	0.400	0.008	0.016
c	0.080	0.150	0.003	0.006
D	2.000	2.200	0.079	0.087
E	1.150	1.350	0.045	0.053
E1	1.350	2.450	0.085	0.096
e	0.650 TYP		0.026 TYP	
e1	1.200	1.400	0.047	0.055
L	0.525 REF		0.021 REF	
L1	0.260	0.460	0.010	0.018
θ	0°	8°	0°	8°

Revision History

Rev.	Change	Date
V1.0	Initial version	2/23/2024

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