

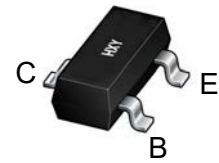


Features

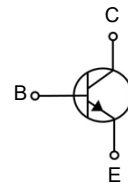
- Power switching applications

Package Marking and Ordering Information

Product ID	Pack	Marking	Qty(PCS)
13001	SOT-23	8D	3000



SOT-23



Maxmim Ratings (Ta=25 unless otherwise noted)

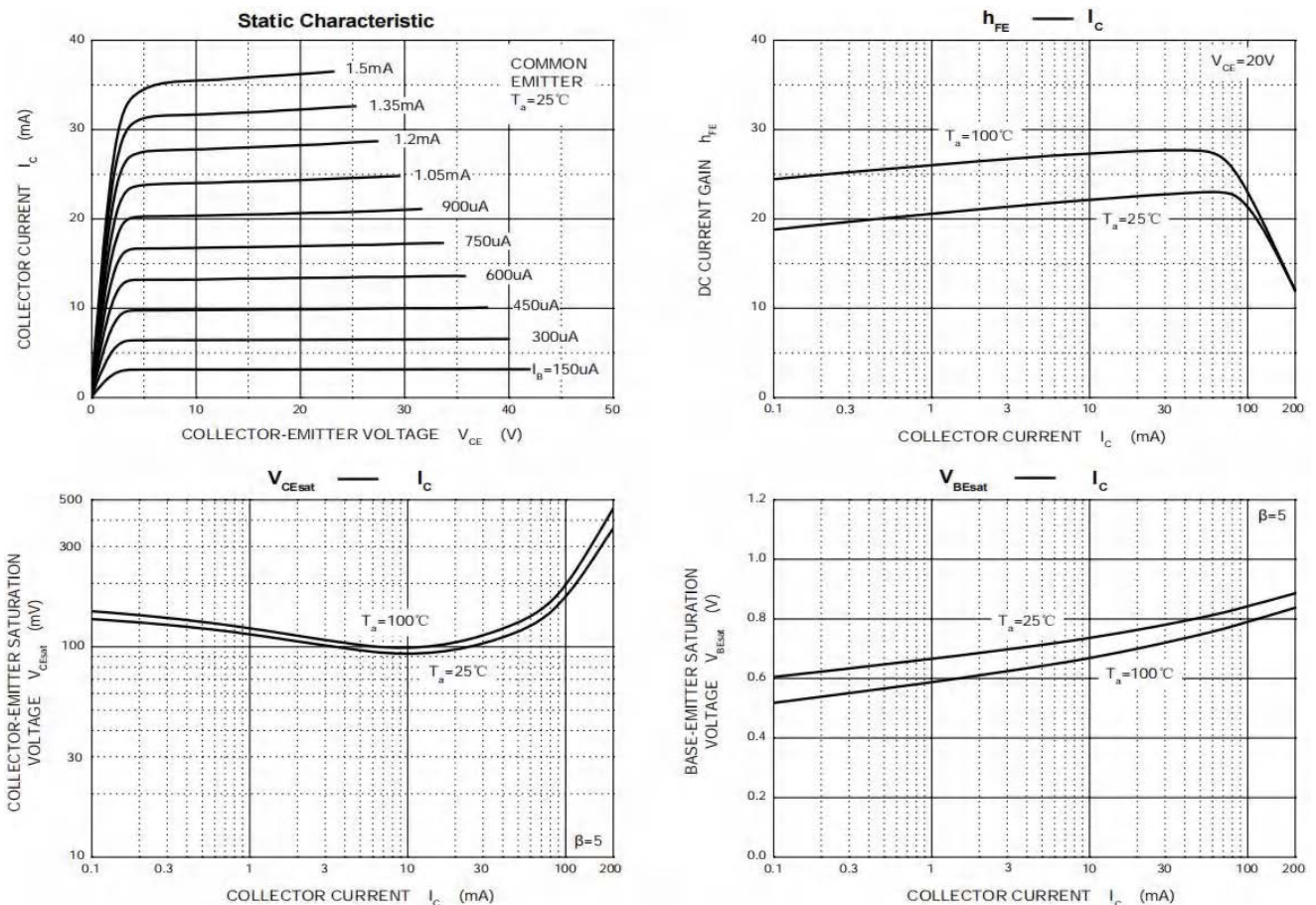
Parameter	Symbol	Limit	Unit
Collector-Base Voltage	V_{CBO}	600	V
Collector-Emitter Voltage	V_{CEO}	420	V
Emitter-Base Voltage	V_{EBO}	7	V
Collector Current	I_C	200	mA
Collector Power Dissipation	P_C	300	mW
Thermal Resistance From Junction To Ambient	$R_{\theta JA}$	400	°C/W
Junction Temperature	T_j	150	°C
Storage Temperature	T_{stg}	-55~+150	°C

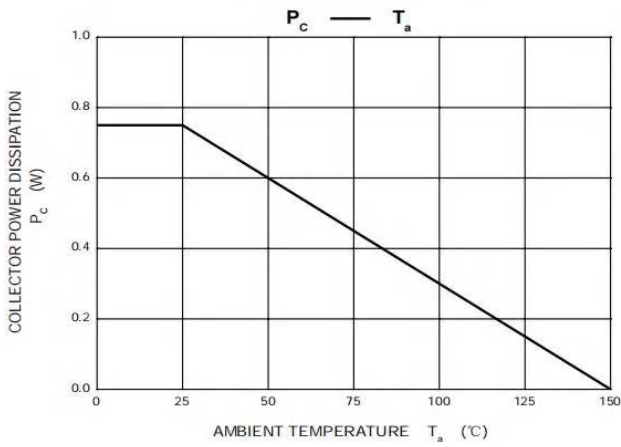
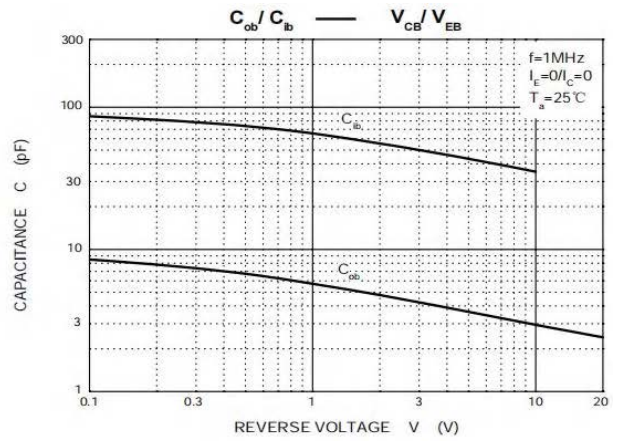
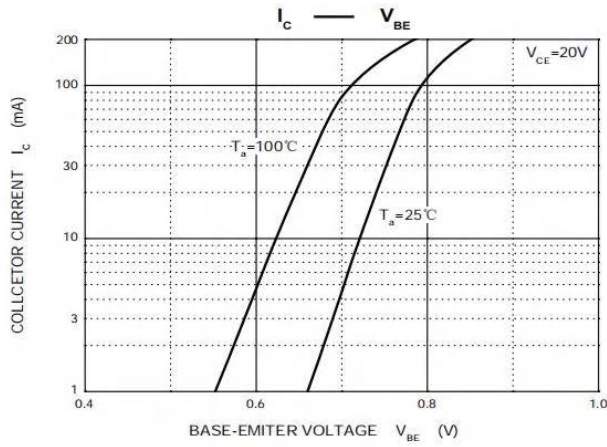


Electrcal Characteristics (T_a=25 unless otherwise specified)

Symbol	Parameter	Test conditions	Min	Typ	Max	Unit
V _{(BR)CBO}	Collector-base breakdown voltage	I _C =100μA, I _E =0	600			V
V _{(BR)CEO}	Collector-emitter breakdown voltage	I _C =1mA, I _B =0	420			V
V _{(BR)EBO}	Emitter-base breakdown voltage	I _E =100μA, I _C =0	7			V
I _{CBO}	Collector cut-off current	V _{CB} =600V, I _E =0			100	μA
I _{CEO}	Collector cut-off current	V _{CE} =400V, I _E =0			200	μA
I _{EBO}	Emitter cut-off current	V _{EB} =7V, I _C =0			100	μA
h _{FE} (1)	DC current gain(1)	V _{CE} =20V, I _C =20mA	18		30	
h _{FE} (2)	DC current gain(2)	V _{CE} =10V, I _C =0.25mA	5			
V _{CE(sat)1}	Collector-emitter saturation voltage	I _C =50mA, I _B =10mA			0.5	V
V _{BE(sat)1}	Base-emitter saturation voltage				1.2	V
f _T	Transition frequency	V _{CE} =20V, I _C =20mA, f=1MHz	8			MHz
t _f	Fall time	I _C =50mA, V _{CC} =45V, I _{B1} =-I _{B2} =5mA,			0.3	μS
t _s	Storage time				1.5	μS

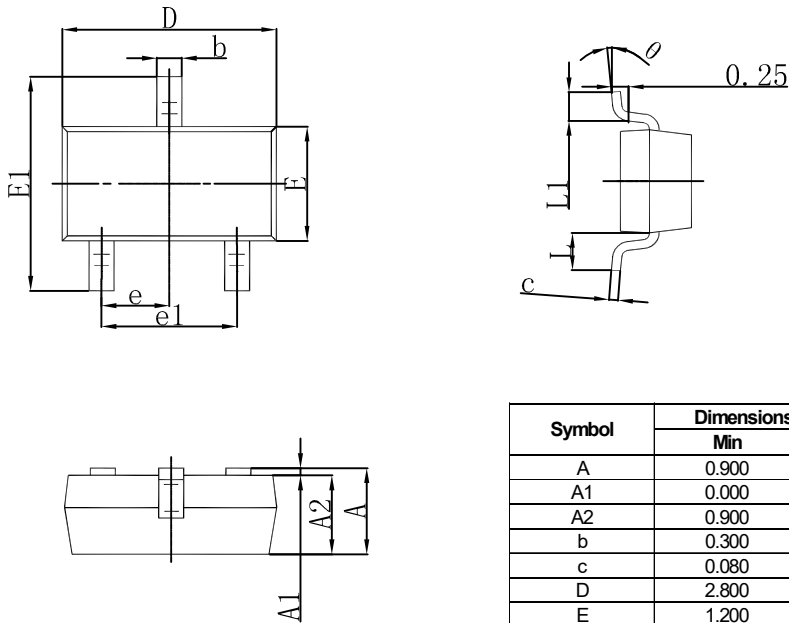
Typical Characteristics





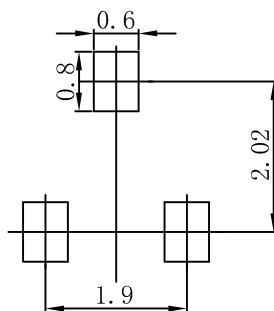


SOT-23 Package Outline Dimensions



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



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



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