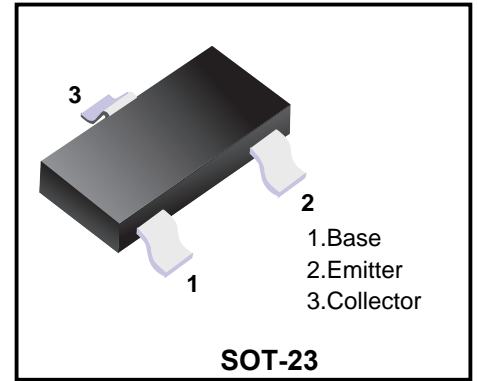


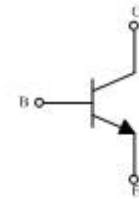
NPN Transistors

Features

- Power switching applications



Marking Code	
3DD13001	8D



Absolute Maximum Ratings (Ta=25°C)

Symbol	Parameter	Value	Units
VCBO	Collector-Base Voltage	800	V
VCEO	Collector-Emitter Voltage	500	V
VEBO	Emitter-Base Voltage	9	V
IC	Collector Current -Continuous	0.2	A
PC	Collector Power Dissipation	0.5	W
Tj	Junction Temperature	150	°C
Tstg	Storage Temperature	-55-150	°C

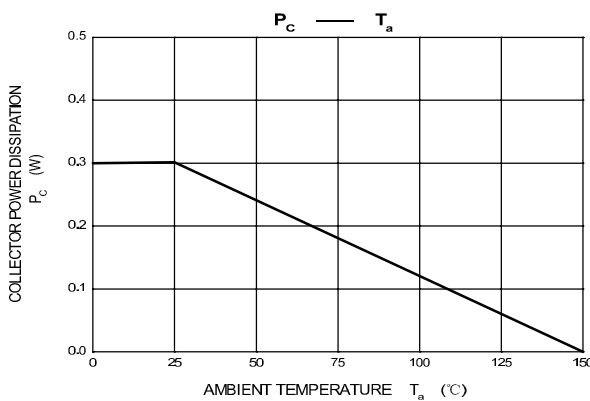
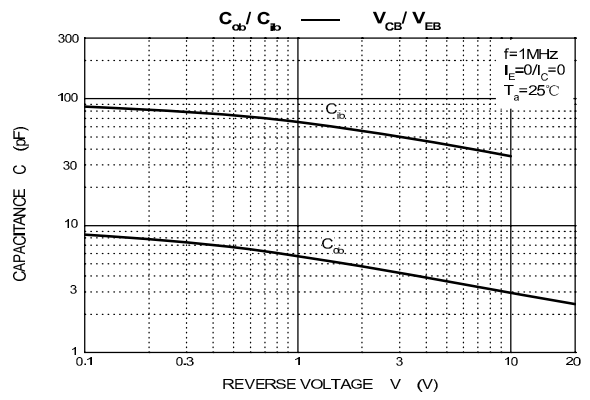
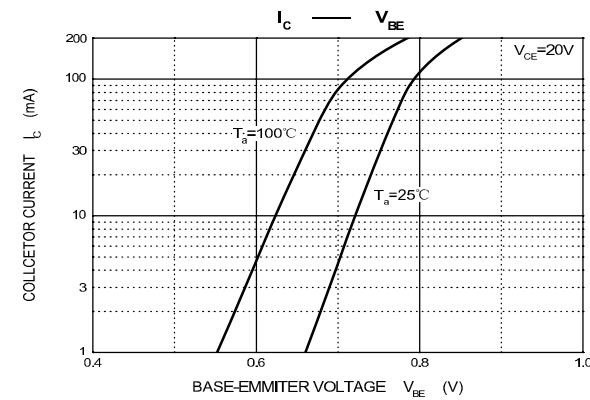
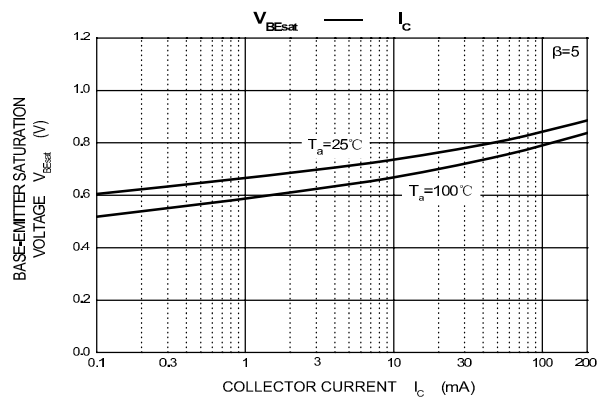
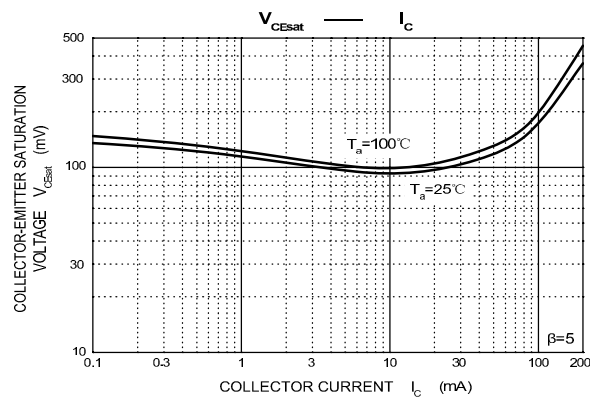
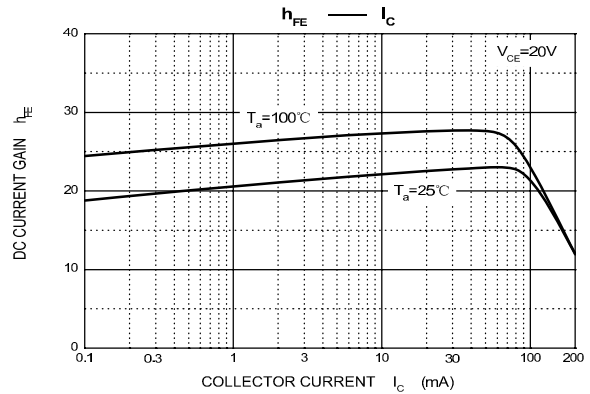
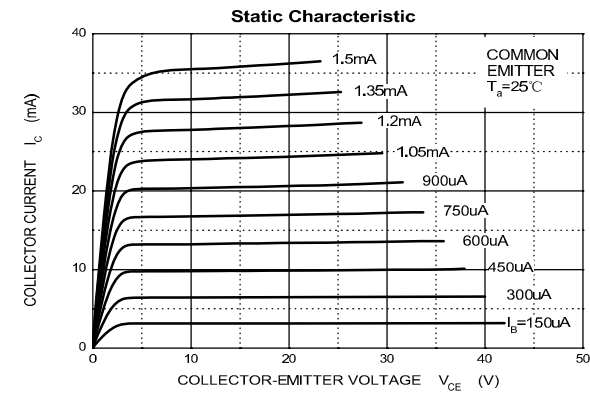
Electrical Characteristics (Ta=25°C unless otherwise specified.)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	V(BR)CBO	IC= 100μA, IE=0	800			V
Collector-emitter breakdown voltage	V(BR)CEO	IC= 1mA, IB=0	500			V
Emitter-base breakdown voltage	V(BR)EBO	IE=100μA, IC=0	9			V
Collector cut-off current	ICBO	VCB=600 V , IE=0			1	μ A
Collector cut-off current	ICEO	VCE=400V , IB=0			10	μ A
Emitter cut-off current	IEBO	VEB=9V , IC=0			1	μ A
DC current gain	hFE	VCE=20V, IC= 20mA	8			
DC current gain	hFE	VCE=5V, IC= 1mA	8		30	
Collector-emitter saturation voltage	VCE(sat)	IC=100mA, IB= 20mA			0.5	V
Base-emitter saturation voltage	VBE(sat)	IC=100mA, IB= 20mA			1.2	V

hFE Classification

Range	8-15	15-20	20-25	25-30

Typical Characteristics



Ordering information

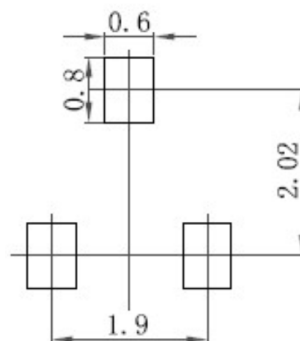
Package	Packing Description	Base Quantity	Packing Quantity
SOT-23	Tape/Reel,7"reel	3000pcs/Reel	24000PCS/Box 120000PCS/Carton

Package Dimensions

SOT-23

Dim.	Millimeter (mm)		mil	
	Min.	Max.	Min.	Max.
A	0.9	1.15	35	45
A1	0.1		3.9	
bp	0.38	0.48	15	19
C	0.09	0.15	3.54	5.9
D	2.8	3.0	110	118
E	1.2	1.4	47	55
E	1.9		75	
E1	0.95		37	
HE	2.1	2.55	83	100
Lp	0.15	0.45	5.9	18
Q	0.45	0.55	18	22
v	0.2		7.9	
W	0.1		4	

The recommended mounting pad size



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