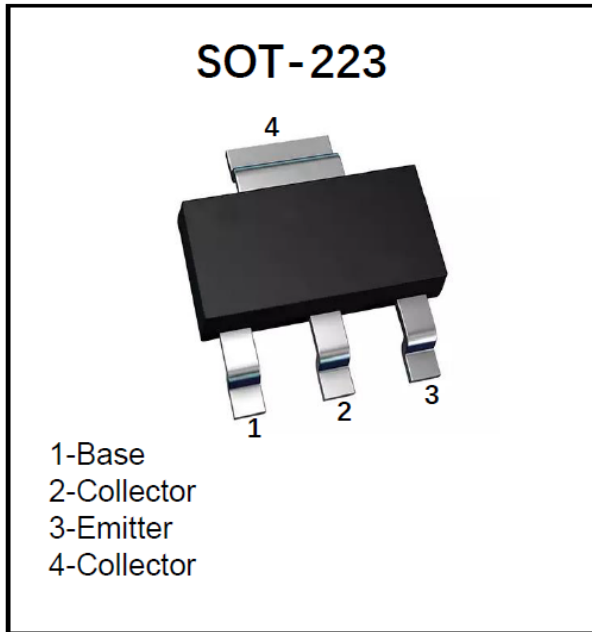


NPN Transistor



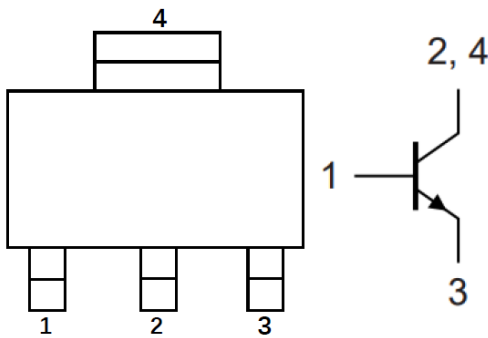
Features

- Epoxy meets UL-94 V-0 flammability rating
- Halogen free available upon request by adding suffix "HF"
- Moisture Sensitivity Level 1

Mechanical Data

- **Package:** SOT-223
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Marking:** PB4350

■Equivalent circuit



■Maximum Ratings (Ta=25°C unless otherwise noted)

Item	Symbol	Unit	Conditions	Value
Collector-Emitter Voltage	V_{CEO}	V	$I_C=10mA, I_B=0$	50
Collector-Base Voltage	V_{CBO}	V	$I_C=100\mu A, I_E=0$	60
Emitter-Base Voltage	V_{EBO}	V	$I_E=100\mu A, I_C=0$	6
Collector Current	I_C	A		3
Power Dissipation	P_D	W		0.5
Operation Junction Temperature	T_J	°C		-55 to +150
Storage Temperature	T_{stg}	°C		-55 to +150

**■ Electrical Characteristics** (Ta=25°C unless otherwise noted)

Item	Symbol	Unit	Conditions	Min	Typ	Max
Collector-base breakdown voltage	V _{CBO}	V	I _C =100μA, I _E =0	60		
Collector-emitter breakdown voltage	V _{CEO}	V	I _C =10mA, I _B =0	50		
Emitter-base breakdown voltage	V _{EBO}	V	I _E =100μA, I _C =0	6		
Collector-base cut-off current	I _{CBO}	nA	V _{CB} =50V, I _E =0			100
Emitter-base cut-off current	I _{EBO}	nA	V _{EB} =5V, I _C =0			100
DC current gain	h _{FE} 1		V _{CE} =2V, I _C =0.5A	200		
	h _{FE} 2		V _{CE} =2V, I _C =1A	200		
	h _{FE} 3		V _{CE} =-2V, I _C =2A	100		
Collector-emitter saturation voltage	V _{CE(sat)}	mV	I _C =0.5A, I _B =50mA			90
			I _C =1A, I _B =50mA			170
			I _C =2A, I _B =200mA			290
Base-emitter saturation voltage	V _{BE(sat)}	V	I _C =2A, I _B =200mA			1.2
Collector-emitter saturation resistance	R _{CE(sat)}	mΩ	I _C =2A, I _B =200mA			145
Base-emitter turn on voltage	V _{BE on}	V	V _{CE} =2V I _C =1A			1.1
Output Capacitance	Cob	pF	V _{CB} =10V, I _E =0, f=1MHz		30	

■ Thermal Characteristics

Parameter	Symbol	Unit	Value
Thermal resistance, junction to ambient	R _{θJA} ⁽¹⁾	°C/W	250
Thermal resistance, junction to case	R _{θJC} ⁽¹⁾	°C/W	100

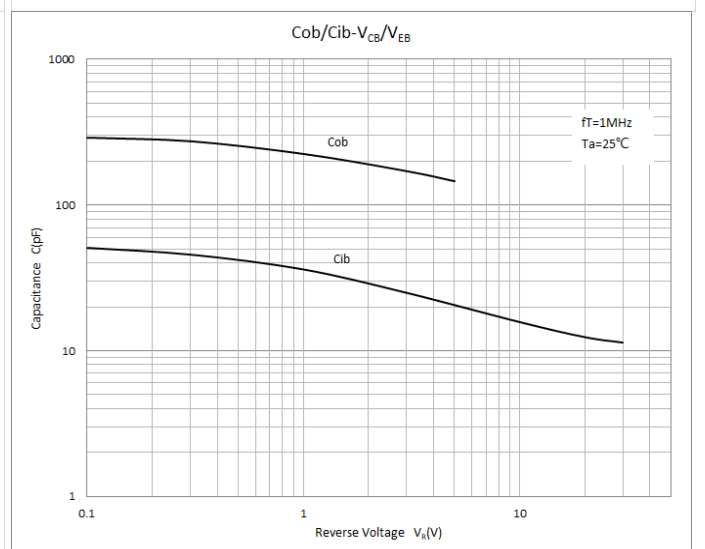
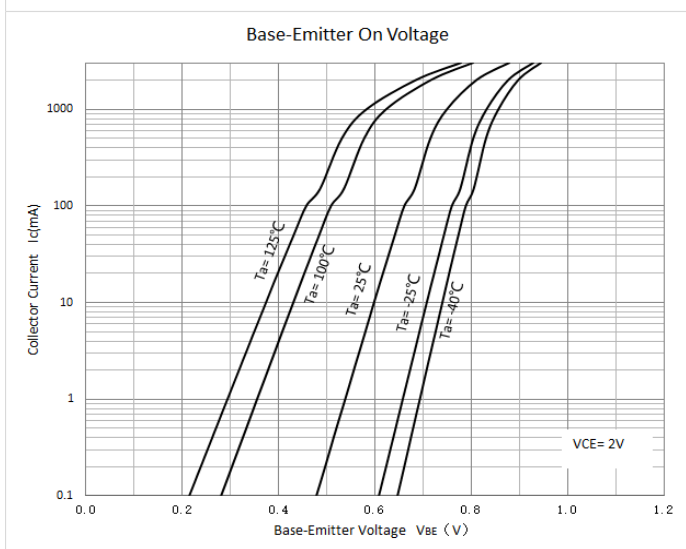
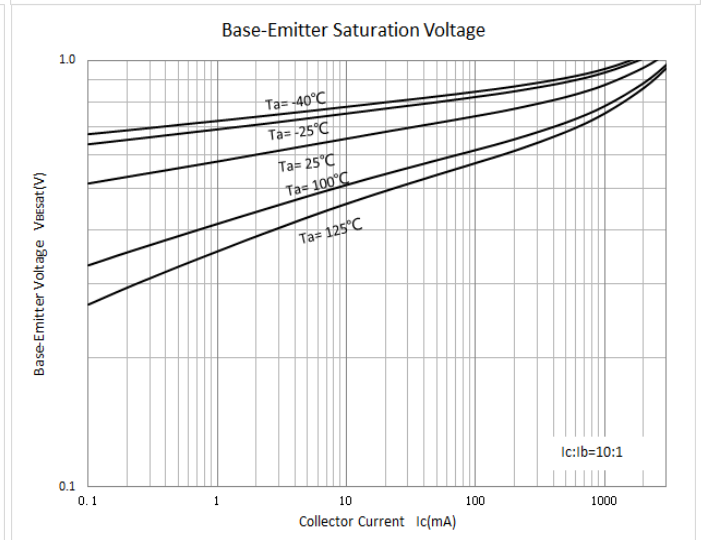
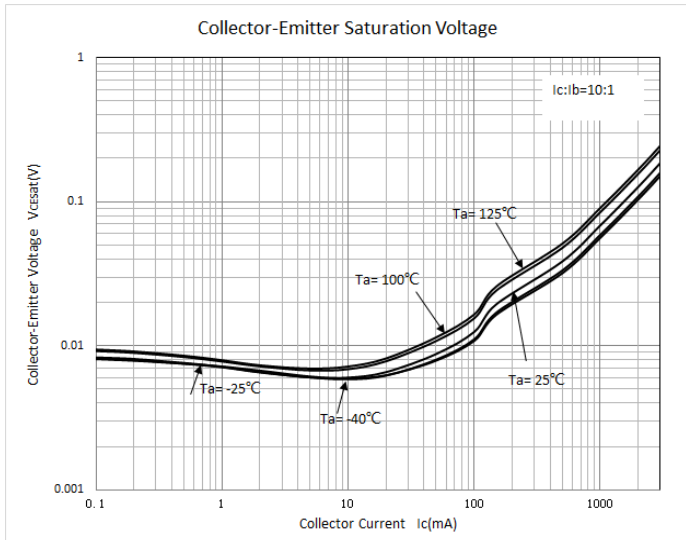
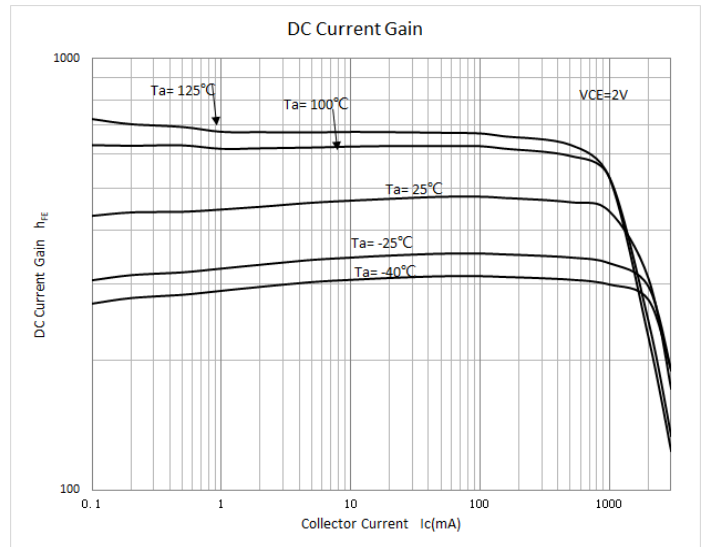
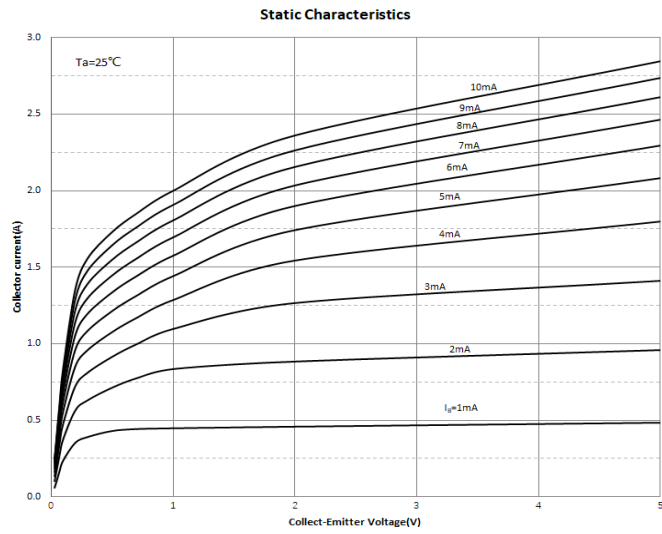
Note: The device is installed and tested on 25.4 * 25.4 * 1.5mm P.C.B.

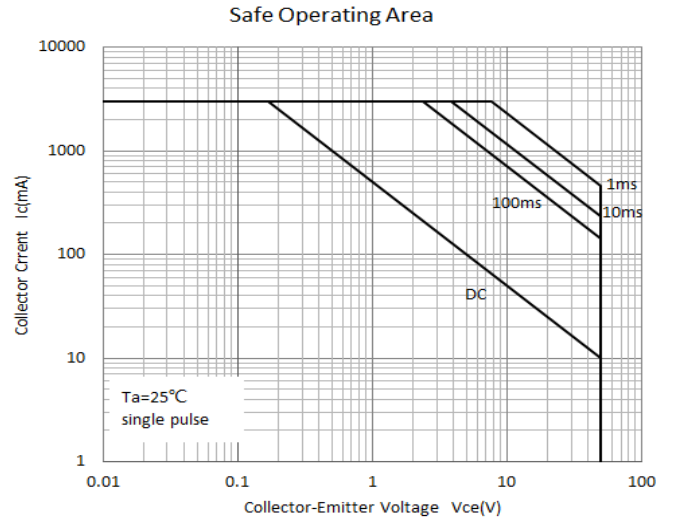
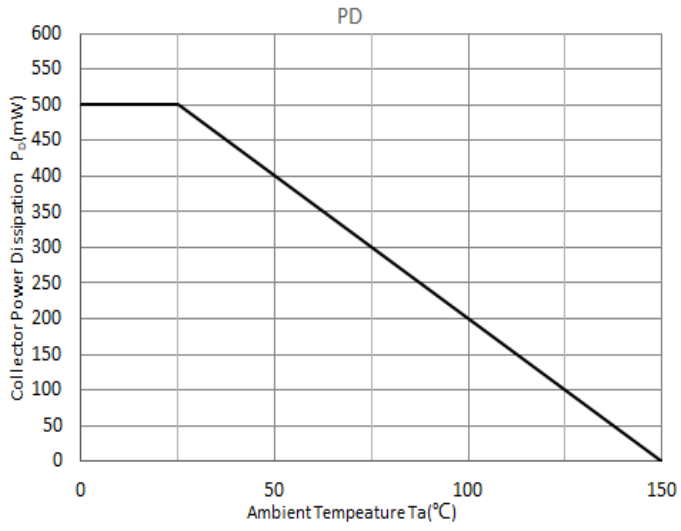
■ Ordering Information (Example)

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
PBSS4350Z	F2	Approximate 0.11	2500	5000	25000	13" reel

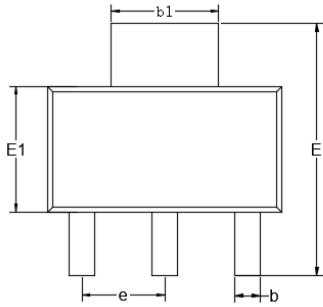
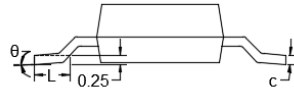
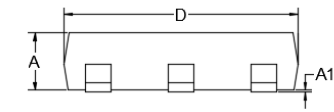


■ Thermal Characteristics (Typical)



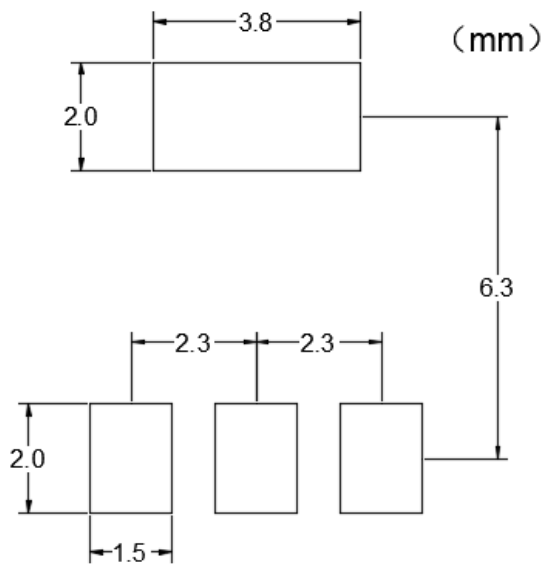


■SOT223 Package Outline Dimensions



DIM	DIMENSIONS			
	INCHES		MM	
	MIN	MAX	MIN	MAX
A	0.0591	0.0670	1.5000	1.7000
A1	0.0008	0.0039	0.0200	0.1000
b	0.0259	0.0330	0.6600	0.8400
b1	0.1140	0.1220	2.9000	3.1000
c	0.0090	0.0138	0.2300	0.3500
D	0.2480	0.2640	6.3000	6.7000
E	0.2637	0.2874	6.7000	7.3000
E1	0.1290	0.1460	3.3000	3.7000
e	0.0866	0.0945	2.2000	2.4000
L	0.0295	0.0492	0.7500	1.2500
θ	0°	10°	0°	10°

■SOT223 Suggested Pad Layout





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