

NPN Transistor



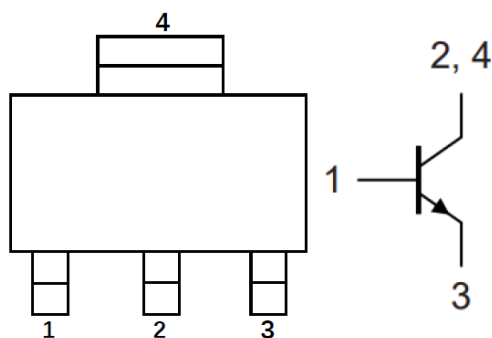
Features

- 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

PBSS4350Z

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

Item	Symbol	Unit	Conditions	Min	Typ	Max
Collector-base breakdown voltage	V_{CBO}	V	$I_C=100\mu A, I_E=0$	60		
Collector-emitter breakdown voltage	V_{CEO}	V	$I_C=10mA, I_B=0$	50		
Emitter-base breakdown voltage	V_{EBO}	V	$I_E=100\mu A, I_C=0$	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

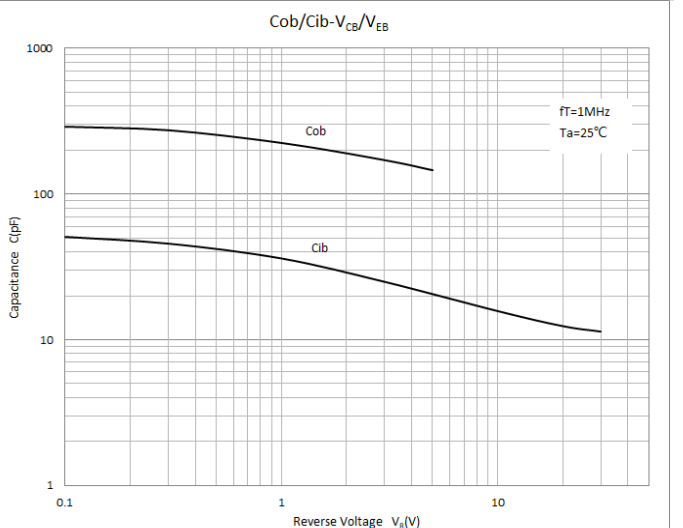
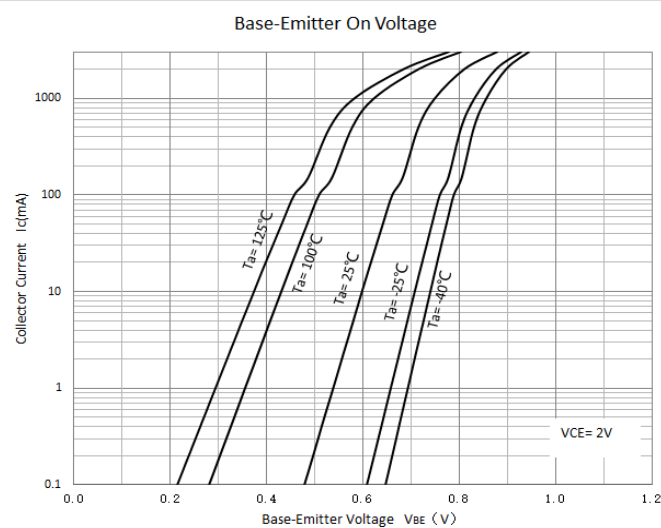
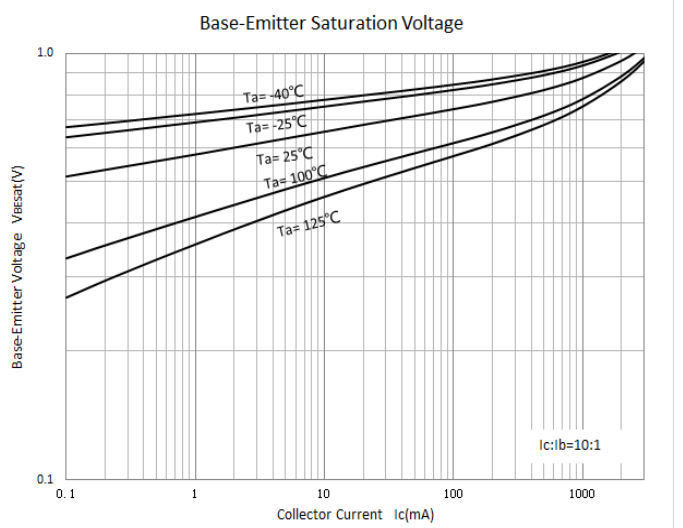
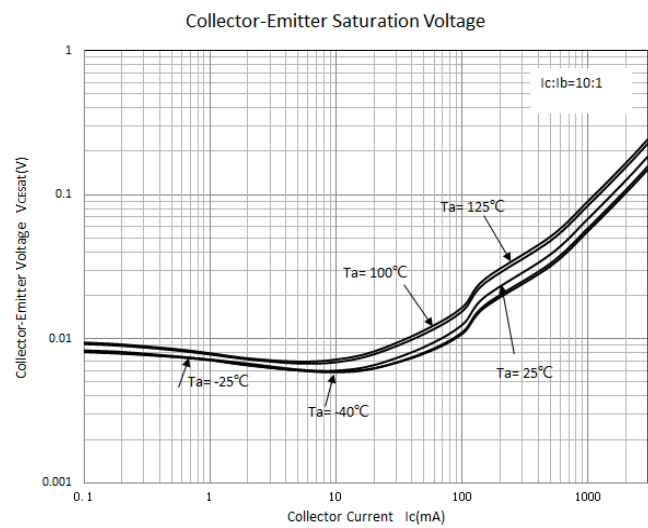
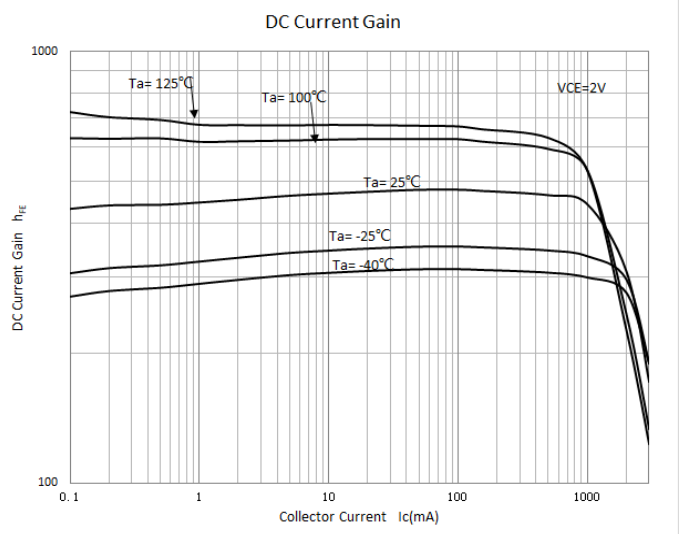
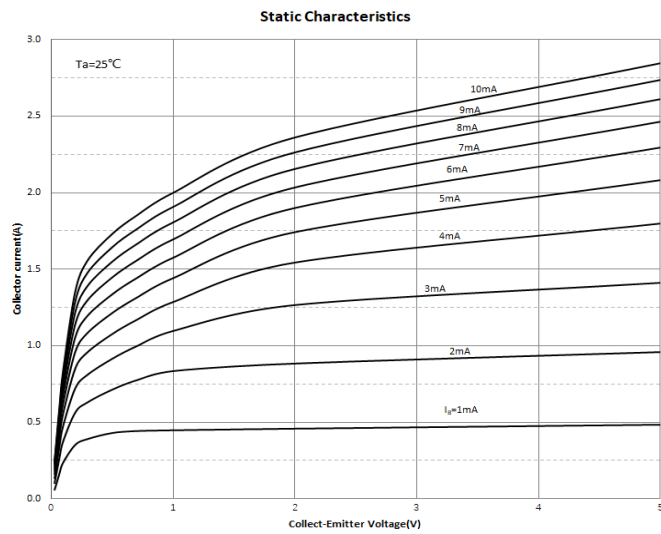
Parameter	Symbol	Unit	Value
Thermal resistance, junction to ambient	$R_{\theta JA}^{(1)}$	°C/W	250
Thermal resistance, junction to case	$R_{\theta JC}^{(1)}$	°C/W	100

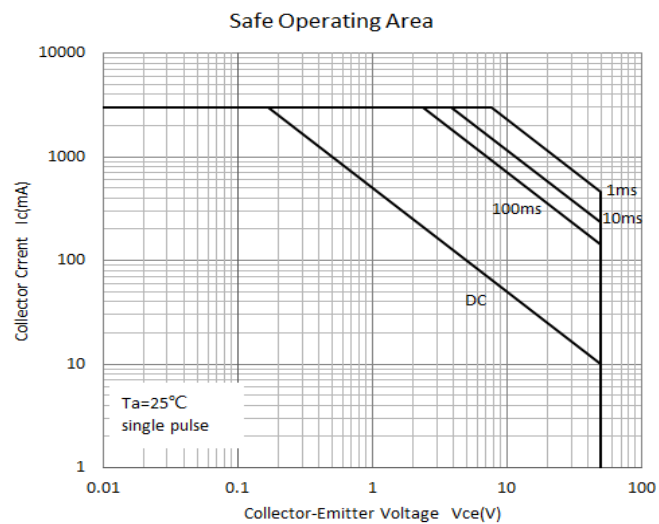
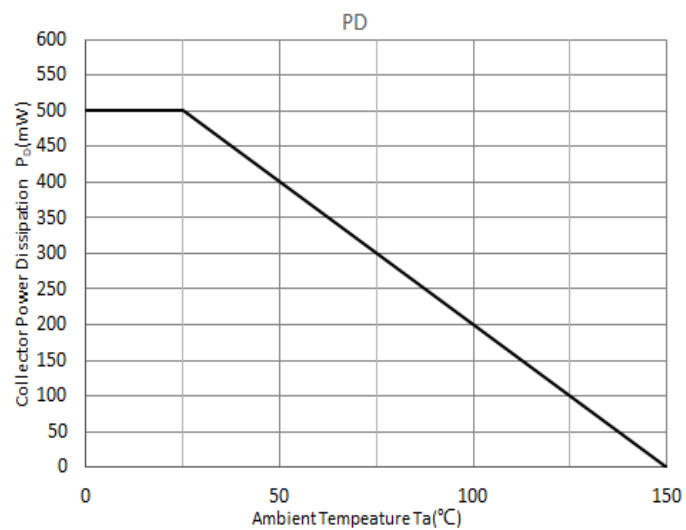
Note: The device is installed and tested on 25.4 * 25.4 * 1.5mm P.C.B.

■ Ordering Information (Example)

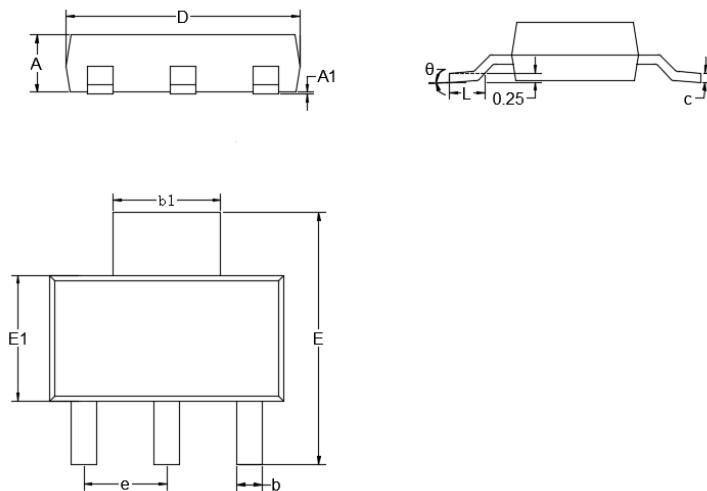
PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
PBSS4350Z	F2	Approximate 0.11	2500	5000	25000	13" reel

■ Thermal Characteristics (Typical)



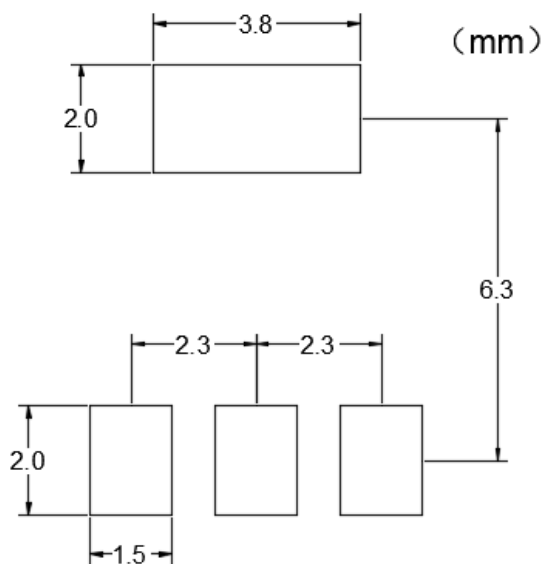


■SOT223 Package Outline Dimensions



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



Disclaimer

The information presented in this document is for reference only. Shanghai Sunco Electronics Co., Ltd reserves the right to make changes without notice for the specification of the products displayed herein to improve reliability, function or design or otherwise.

The product listed herein is designed to be used with ordinary electronic equipment or devices, and not designed to be used with equipment or devices which require high level of reliability and the malfunction of which would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear reactor controllers, fuel controllers and other safety devices), Russiansunco or anyone on its behalf, assumes no responsibility or liability for any damages resulting from such improper use of sale.

This publication supersedes & replaces all information previously supplied. For additional information, please visit our website [http:// www.russiansunco.com](http://www.russiansunco.com) , or consult your nearest Russiansunco's sales office for further assistance