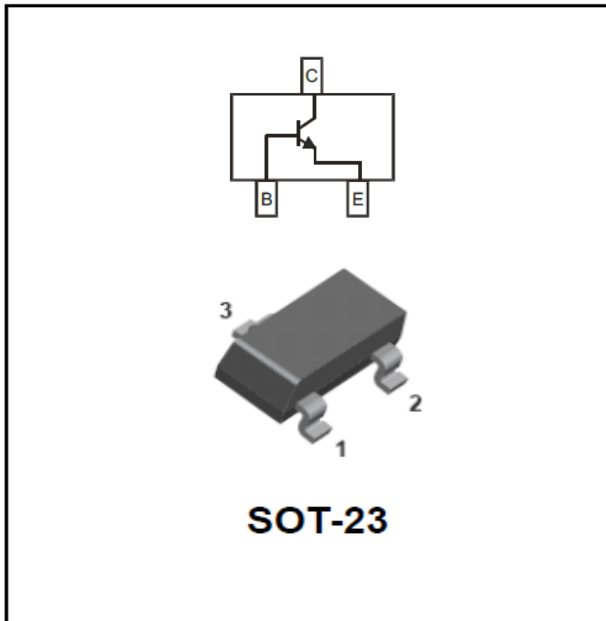


NPN General Purpose Amplifier



Features

- Low collector-emitter saturation voltage
- High current capability
- Improved device reliability due to reduced heat generation
- Epoxy meets UL94 V0 flammability rating
- Halogen free available upon request by adding suffix "HF"
- Moisture Sensitivity Level 1
- Marking: ZE

Applications

- Supply line switching circuits
- Battery management
- DC-DC converter
- Strobe flash
- Motor and lamp driver

■ Maximum Ratings (Ta=25°C)

Item	Symbol	Unit	Conditions	Value
Collector-Emitter Voltage	V_{CE0}	V	$I_C=1mA, I_B=0$	40
Collector-Base Voltage	V_{CB0}	V	$I_C=100\mu A, I_E=0$	40
Emitter-Base Voltage	V_{EB0}	V	$I_E=100\mu A, I_C=0$	5
Collector Current	I_C	A		2
Collector Power Dissipation	P_C	mW		300
Thermal Resistance From Junction To Ambient	$R_{\theta JA}$	°C/W		417
Operation Junction Temperature	T_j	°C		150
Storage Temperature	T_{stg}	°C		-55 to +150

■ Ordering Information (Example)

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
PBSS4240T	F2	Approximate 0.008	3000	30000	120000	7" reel

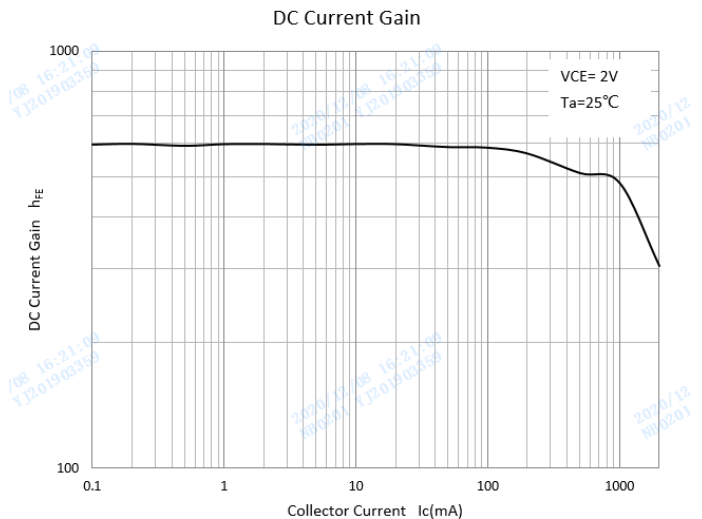
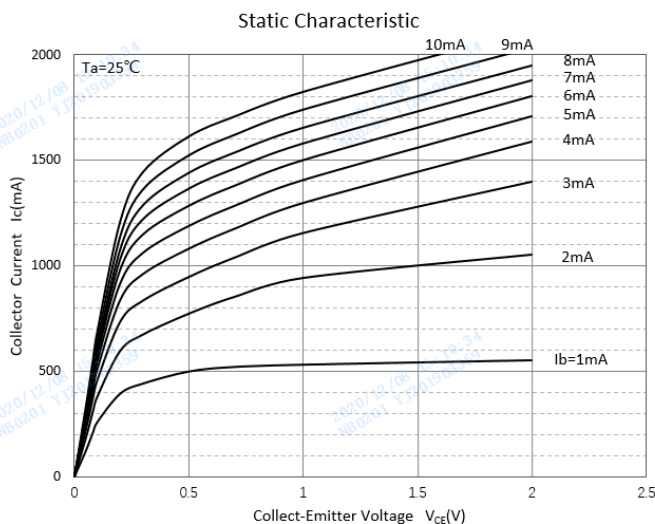


PBSS4240T

■Electrical Characteristics (T_a=25°C)

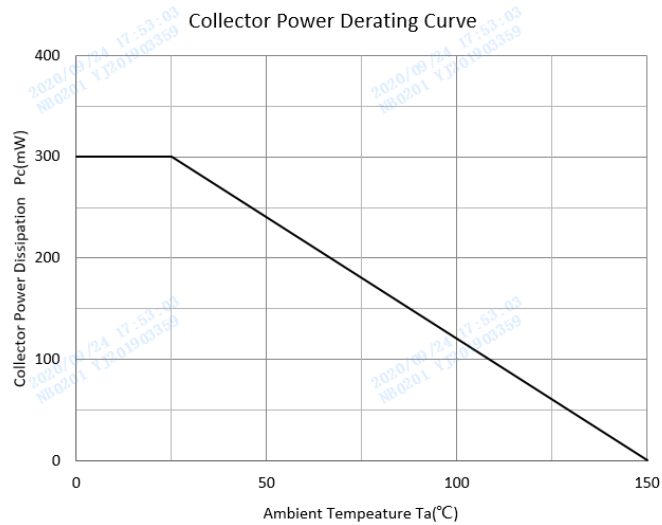
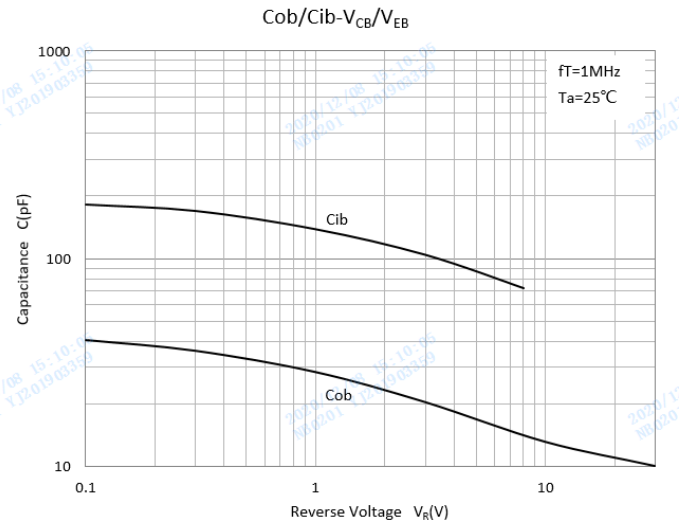
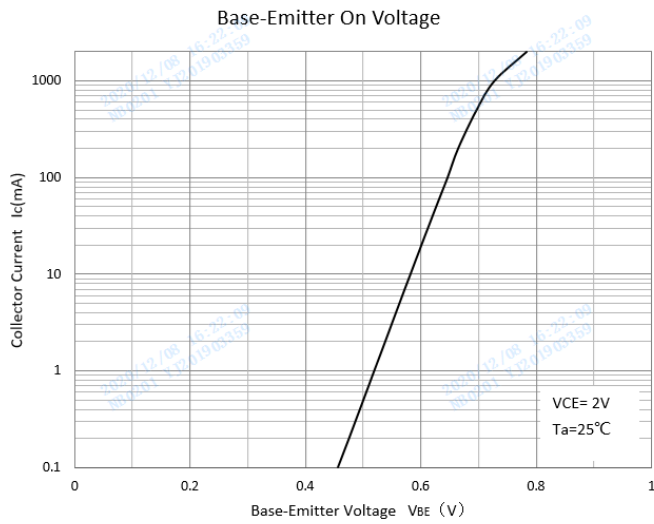
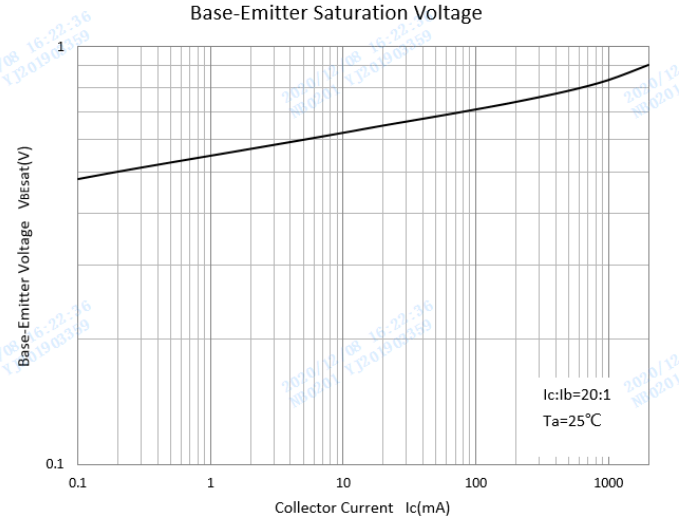
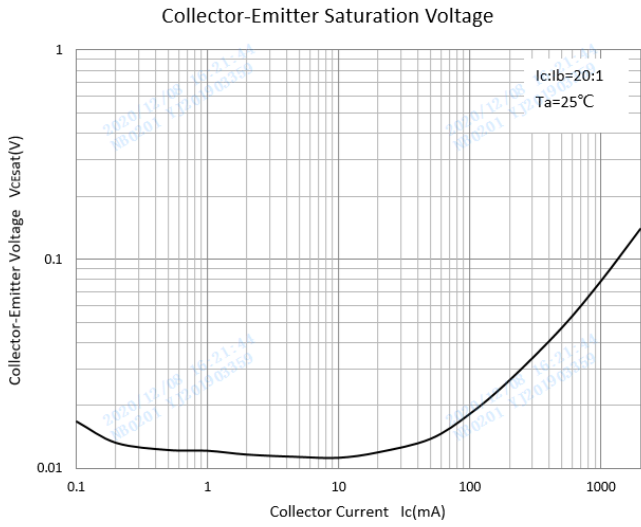
Item	Symbol	Unit	Conditions	Min	Max
CollectorEmitter Voltage	V _{CEO}	V	I _C =1mA, I _B =0	40	
CollectorBase Voltage	V _{CBO}	V	I _C =100uA, I _E =0	40	
EmitterBase Voltage	V _{EBO}	V	I _E =100uA, I _C =0	5	
Collectorbase Cutoff Current	I _{CBO}	nA	V _{CB} =30V		100
Baseemitter Cutoff Current	I _{EB0}	nA	V _{EB} =4V		100
DC Current Gain	h _{FE}		I _C =100mA V _{CE} =2V	350	
			I _C =500mA V _{CE} =2V	300	
			I _C =1A V _{CE} =2V	300	
			I _C =2A V _{CE} =2V	150	
CollectorEmitter Saturation Voltage	V _{CE(sat)1}	mV	I _C =100mA I _B =1mA		70
	V _{CE(sat)2}	mV	I _C =500mA I _B =50mA		100
	V _{CE(sat)3}	mV	I _C =750mA I _B =15mA		180
	V _{CE(sat)4}	mV	I _C =1A I _B =50mA		180
	V _{CE(sat)5}	mV	I _C =2A I _B =200mA		320
Equivalent OnResistance	R _{CE(sat)}	mΩ	I _C =500mA I _B =50mA		200
BaseEmitter Saturation Voltage	V _{BE(sat)}	V	I _C =2A I _B =200mA		1.1
BaseEmitter TurnOn Voltage	V _{BE(on)}	V	I _C =100mA V _{CE} =2V		0.75
Transition frequency	f _T	MHz	I _C =100mA, V _{CE} =10V, f=100MHz	100	
Collector Capacitance	Cob	pF	V _{CB} =10V, I _E =0, f=1MHz		20

■Characteristics(Typical)





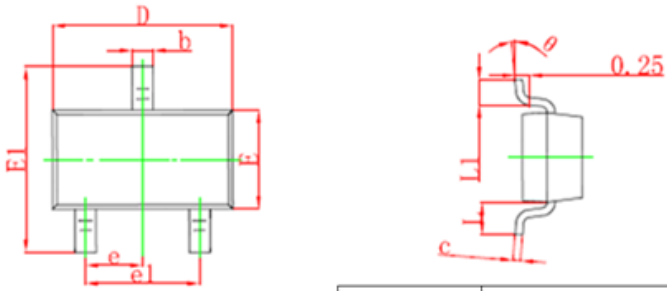
PBSS4240T





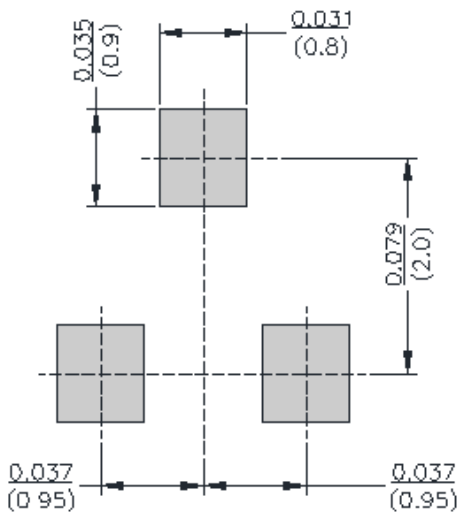
PBSS4240T

■SOT23 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	0.100	0.200	0.004	0.008
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	0.950TYP		0.037TYP	
e1	1.800	2.000	0.071	0.079
L	0.550REF		0.022REF	
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°

■SOT23 Soldering Footprint





PBSS4240T

Disclaimer

The information presented in this document is for reference only. Yangzhou Yangjie Electronic Technology 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), Yangjie 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.21yangjie.com>, or consult your nearest Yangjie's sales office for further assistance.