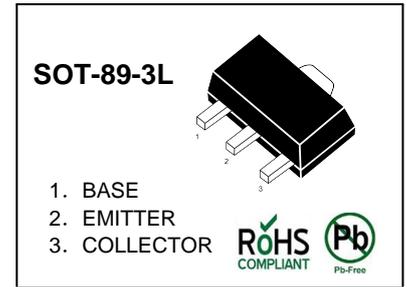


Plastic-Encapsulate Transistors

TRANSISTOR (PNP)

■ Features

- Adoption of FBET, MBIT processes.
- Low collector-to-emitter saturation voltage.
- Large current capacity and wide ASO.
- Fast switching speed.
- Complementary to 2SD1623U



■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Collector-base voltage	V _{CB0}	-60	V
Collector-emitter voltage	V _{CEO}	-50	V
Emitter-base voltage	V _{EBO}	-6	V
Collector current	I _C	-2	A
Collector current (pulse)	I _{CP}	-4	A
Collector dissipation	P _C	0.5	W
Mounted on a ceramic board (250mm250.8mm)		1.3	W
Jumction temperature	T _J	150	°C
Storage temperature	T _{stg}	-55 to +150	°C

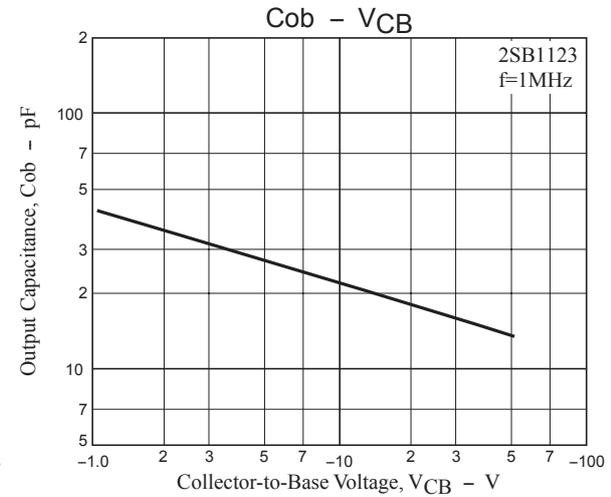
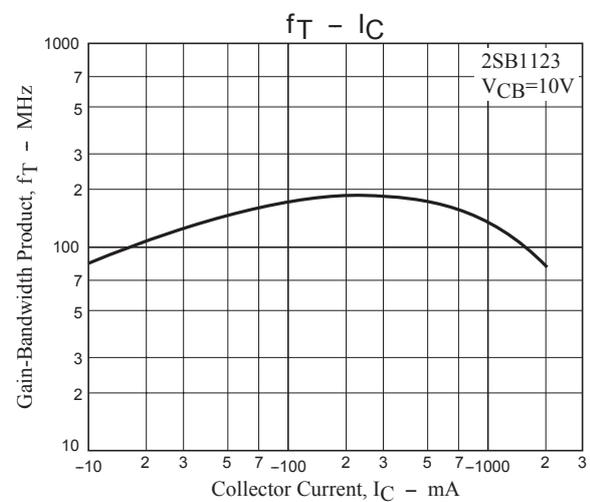
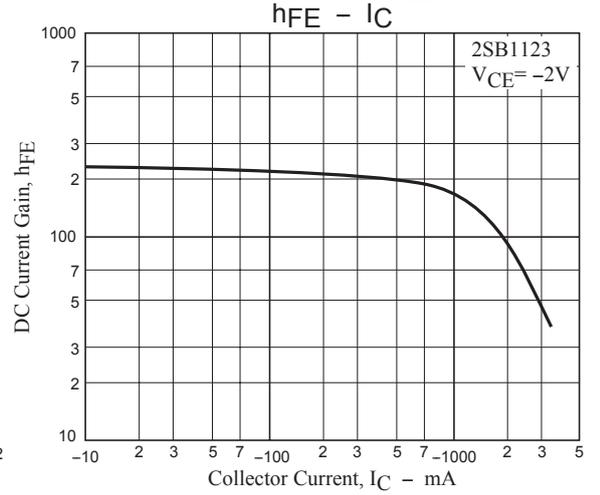
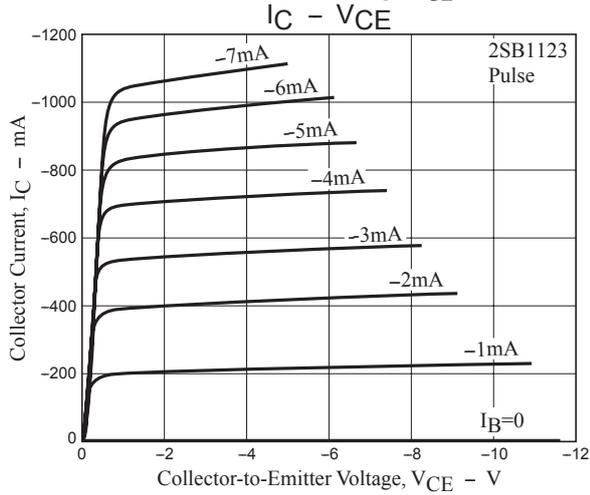
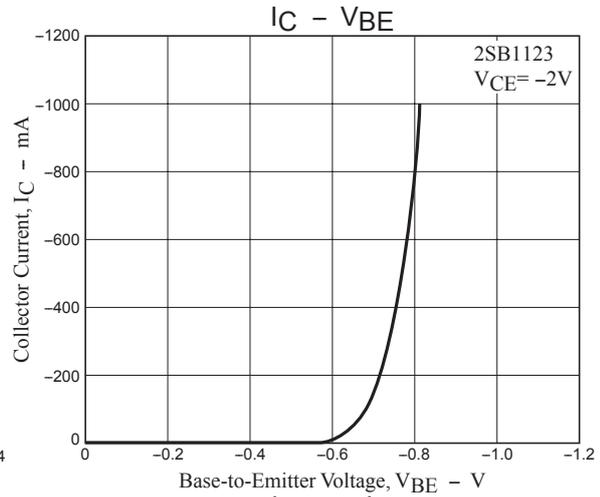
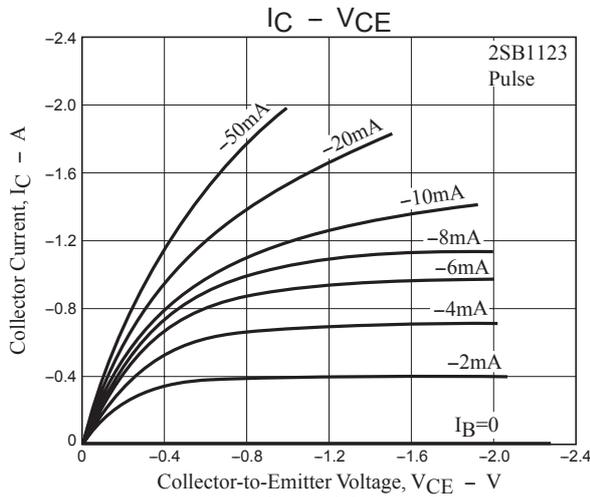
■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit	
Collector cutoff current	I _{CBO}	V _{CB} = -50V, I _E = 0			-100	nA	
Emitter-base cutoff current	I _{EBO}	V _{EB} = -4 V, I _C = 0			-100	nA	
DC current Gain	h _{FE}	V _{CE} = -2V, I _C = -100mA	100		560		
Gain bandwidth product	f _T	V _{CE} = -10V, I _C = -50mA		150		MHz	
Output capacitance	C _{ob}	V _{CB} = -10V, f = 1MHz		22		pF	
Collector-emitter saturation voltage	V _{CE(sat)}	I _C = -1A, I _B = -50mA		-0.3	-0.7	V	
Base-emitter saturation voltage	V _{BE(sat)}	I _C = -1A, I _B = -50mA		-0.9	-1.2	V	
Collector-to-base breakdown voltage	V _{(BR)CBO}	I _C = -10μA, I _E = 0	-60			V	
Collector-to-emitter breakdown voltage	V _{(BR)CEO}	I _C = -1mA, R _{BE} = ∞	-50			V	
Emitter-to-base breakdown voltage	V _{(BR)EBO}	I _E = -10μA, I _C = 0	-6			V	
Turn-ON Time	t _{on}	<p>10I_{b1} = -10μA, I_c = 500mA (For PNP, the polarity is reversed)</p>		60		ns	
Storage Time	t _{stg}				450		ns
Fall Time	t _f				30		ns

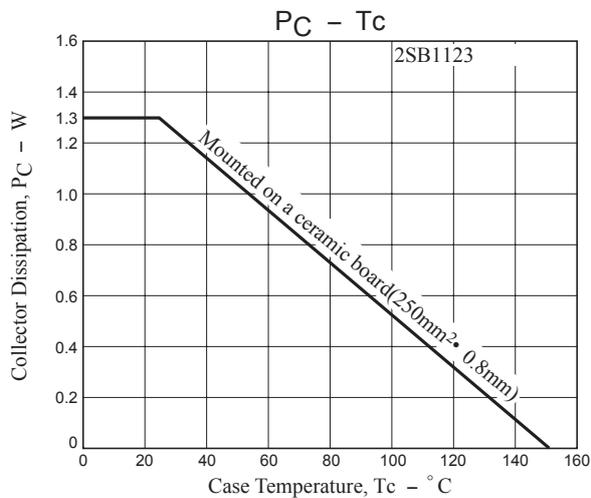
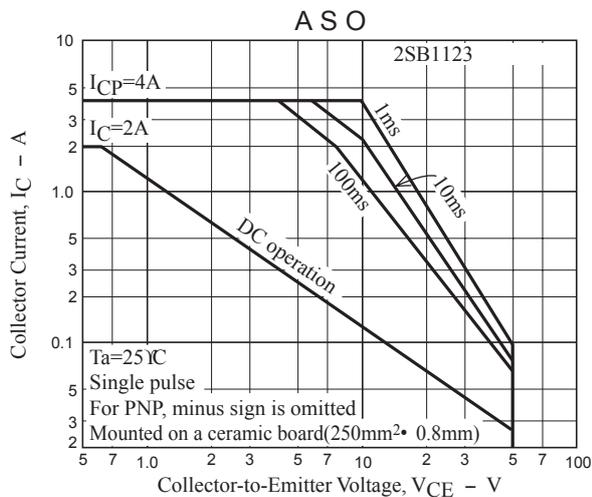
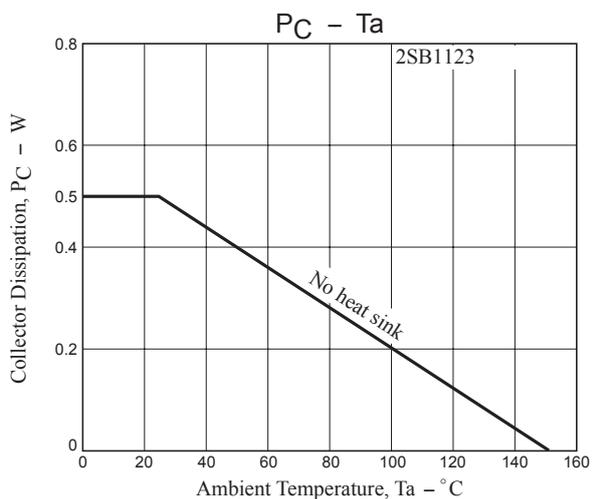
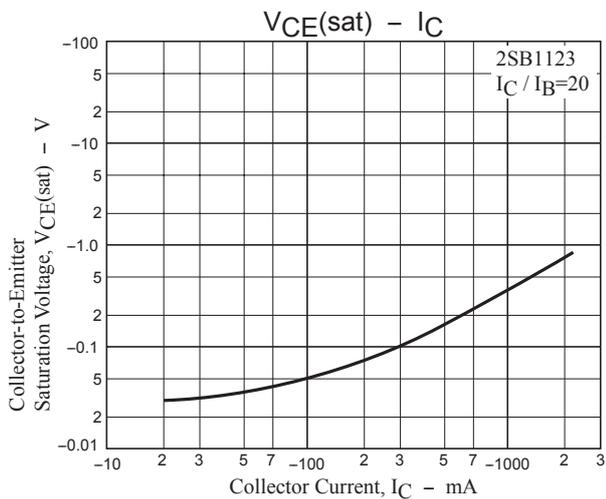
■ hFE Classification

Marking	BF			
Rank	R	S	T	U
hFE	100~200	140~280	200~400	280~560

Typical Characteristics

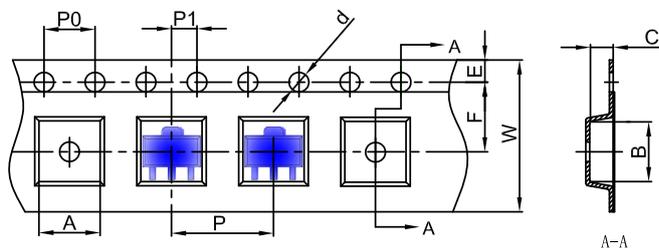


Typical Characteristics



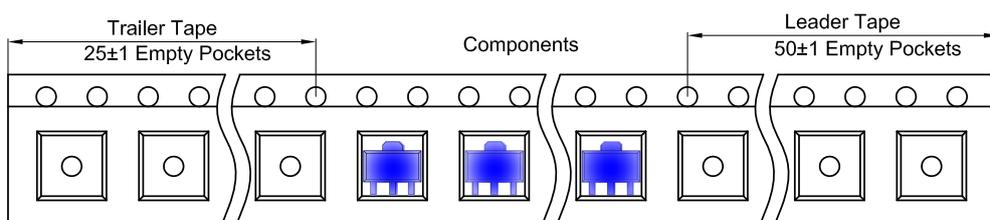
SOT-89-3L Tape and Reel

SOT-89-3L Embossed Carrier Tape

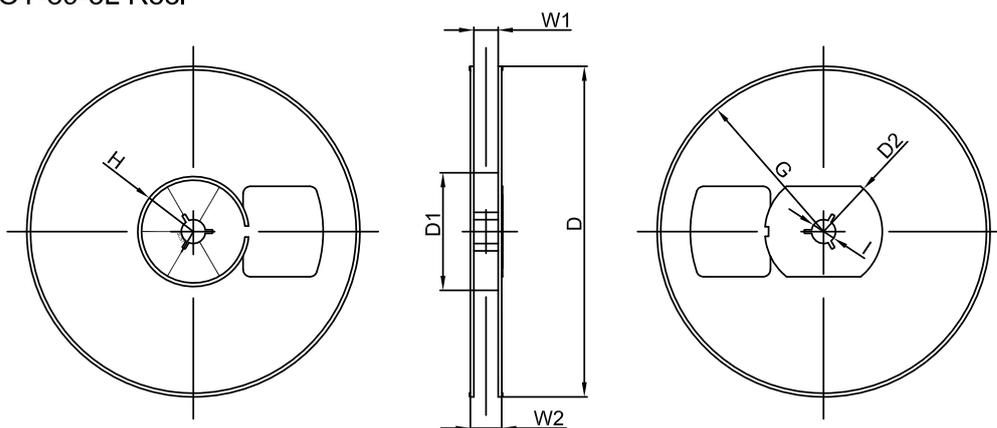


Dimensions are in millimeter										
Pkg type	A	B	C	d	E	F	P0	P	P1	W
SOT-89-3L	4.85	4.45	1.85	Ø1.50	1.75	5.50	4.00	8.00	2.00	12.00

SOT-89-3L Tape Leader and Trailer

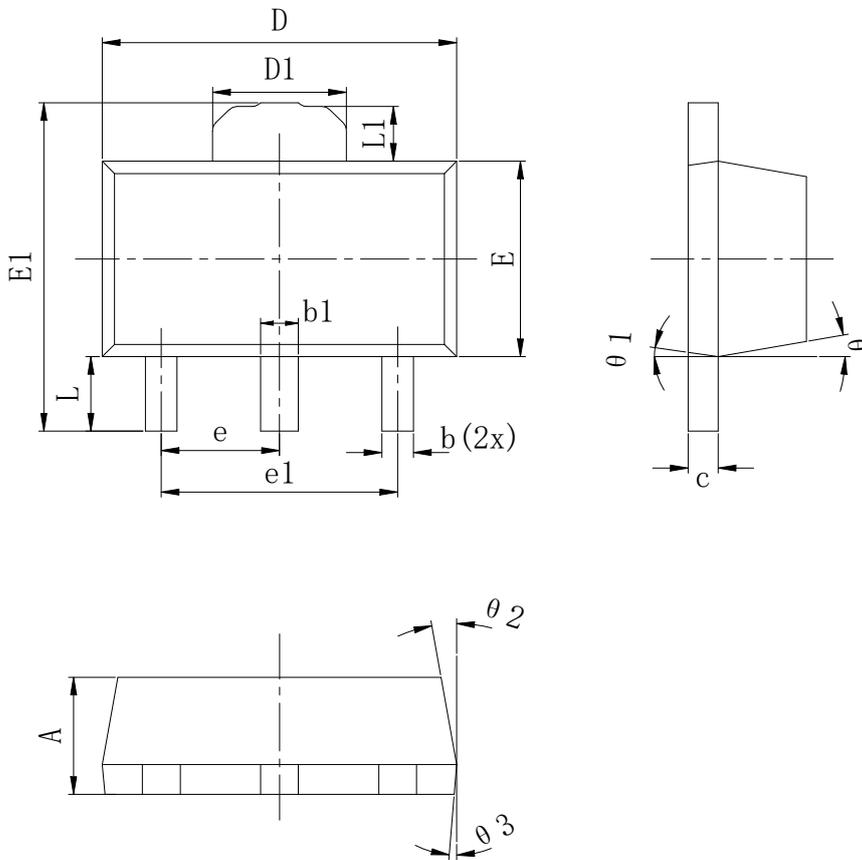


SOT-89-3L Reel



Dimensions are in millimeter								
Reel Option	D	D1	D2	G	H	I	W1	W2
7" Dia	Ø180.00	60.00	R32.00	R86.50	R30.00	Ø13.00	13.20	16.50

REEL	Reel Size	Box	Box Size(mm)	Carton	Carton Size(mm)	G.W.(kg)
1000 pcs	7 inch	10,000 pcs	203×203×195	40,000 pcs	438×438×220	



SYMBOL	MILLIMETER		
	MIN	TYP.	MAX
A	1.400	1.500	1.600
b	0.320	0.400	0.520
b1	0.400	0.480	0.580
c	0.350	0.381	0.440
D	4.400	4.500	4.600
D1	1.700REF		
E	2.400	2.500	2.600
E1	4.050	4.200	4.350
e	1.500TYP.		
e1	3.000TYP.		
L	0.800	0.950	1.200
L1	0.700REF		
θ	10° REF		
θ 1	8° REF		
θ 2	10° REF		
θ 3	5° REF		

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