

SEBC847BE/SEBC847CE
NPN General Purpose Transistor

Revision:A

Features

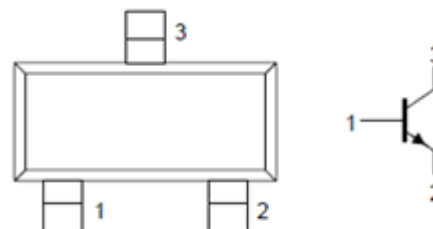
- $BV_{CEO} < 45V$ ($I_C = 1mA$)
- Complements the SEBC857BE

Applications

- Inverter, Interface, Driver

Construction

- NPN epitaxial planar silicon transistor



SOT523

Absolute Maximum Ratings

Parameter	Symbol	Rating	Units
Collector-base voltage	V_{CBO}	50	V
Collector-emitter voltage	V_{CEO}	45	V
Emitter-base voltage	V_{EBO}	6	V
Collector current	I_C	0.1	A
Collector power dissipation	P_C	0.2	W
		0.35	
Junction temperature	T_J	150	°C
Storage temperature	T_{STG}	-55to+150	°C

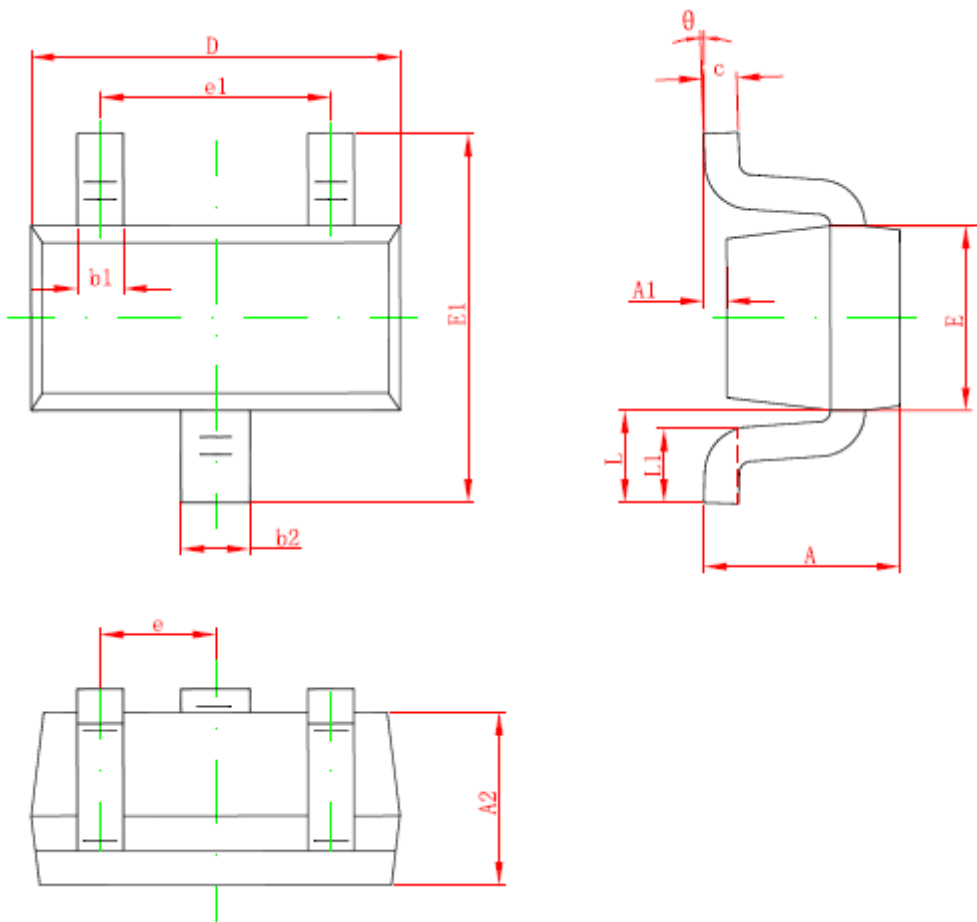
When mounted on a 7X5X0.6mm ceramic board

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Electrical Characteristics (T_J=25°C unless otherwise noted)						
Symbol	Parameter	Test Conditions	Min	Typ	Max	Units
BV _{CBO}	Collector-base breakdown voltage	I _C =50μA	50			V
BV _{CEO}	Collector-emitter breakdown voltage	I _C =1Ma	45			V
BV _{EBO}	Emitter-base breakdown voltage	I _C =50μA	6			V
I _{CBO}	Collector cutoff current	V _{CB} =30V			15	nA
		V _{CB} =30V, T _A =150°C			5	μA
V _{CE(sat)}	Collector-emitter saturation voltage	I _C /I _B =10Ma/0.5mA			0.25	V
		I _C /I _B =100Ma/5mA			0.6	V
h _{fe}	DC current transfer ratio	V _{CE} /I _C =5V/2mA SEBC847BE	200		450	
		V _{CE} /I _C =5V/2Ma SEBC847CE	420		800	
V _{BE(on)}	Base-emitter saturation voltage	V _{CE} /I _C =5V/-20mA	0.58		0.77	V
f _T	Transition frequency	V _{CB} =5 I _E =20Ma F=100MHz		200		MHz
C _{ob}	Collector output capacitance	V _{CB} =5 I _E =0 F=1MHz		3		PF
C _{ib}	Emitter input capacitance	V _{EB} =5 I _C =0 F=1MHz		8		PF

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SOT-523 PACKAGE DIMENSION



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.700	0.900	0.028	0.035
A1	0.000	0.100	0.000	0.004
A2	0.700	0.800	0.028	0.031
b1	0.150	0.250	0.006	0.010
b2	0.250	0.350	0.010	0.014
c	0.100	0.200	0.004	0.008
D	1.500	1.700	0.059	0.067
E	0.700	0.900	0.028	0.035
E1	1.450	1.750	0.057	0.069
e	0.500 TYP.		0.020 TYP.	
e1	0.900	1.100	0.035	0.043
L	0.400 REF.		0.016 REF.	
L1	0.260	0.460	0.010	0.018
θ	0°	8°	0°	8°

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