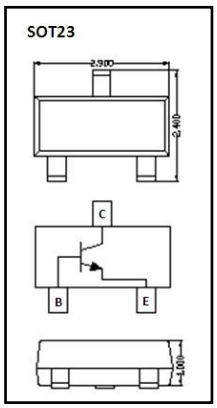
DATA SHEET

BC817 TRANSISTOR (NPN)



◇ Capable of 300mWatts of Power Dissipation
◇ Operating and Storage Junction Temperatures: -55℃ to 150℃
◇ Surface Mount SOT-23 Package
◇ RoHS compliant / Green EMC

MAXIMUM RATINGS (Ta=25℃ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	50	V
V_{CEO}	Collector-Emitter Voltage	45	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current	500	mA
P_C	Collector Power Dissipation	300	mW
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	417	℃/W
T_j	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55～+150	℃

ELECTRICAL CHARACTERISTICS @ 25° C Unless Otherwise Specified

Symbol	Parameter	Test Conditions	Min	Max	Units
V_{CEO}	Collector-Emitter Breakdown Voltage	I_C=10mA, I_B=0	45		V
V_{CBO}	Collector-Base Breakdown Voltage	I_C=10μA, I_E=0	50		V
V_{EBO}	Emitter-Base Breakdown Voltage	I_E=1μA, I_C=0	5.0		V
I_{CBO}	Collector Cutoff Current	V_{CB}=45V, I_E=0V		100	nA
I_{EBO}	Emitter cut-off current	V_{EB}=4V, I_C=0		100	nA

h_{FE}	DC Current Gain*	hfe(1) I_C=100mA, V_{CE}=1V hfe(2) I_C=500mA, V_{CE}=1V	100 40	600	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C=500mA, I_B=50mA		0.7	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C=500mA, I_B=50mA		1.2	V
f_T	Transition frequency	I_C=10mA, V_{CE}=5V, f=100MHz	100		MHZ
C_{ob}	Collector Capacitance	V_{CB}=10.0V, f=1MHz		10	PF

CLASSIFICATION OF hfe(1)

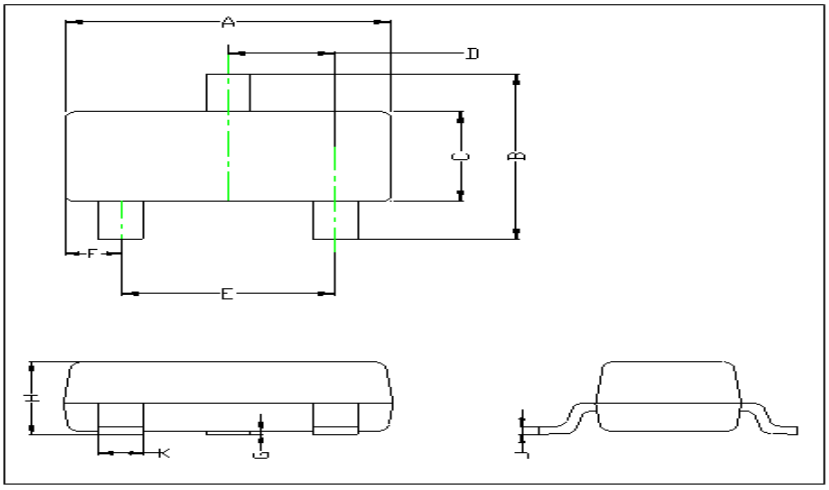
Rank	BC817-16	BC817-25	BC817-40
Range	100-250	160-400	250-600
Marking	6A	6B	6C

ORDERING INFORMATION

Device	Package	Shipping	Tape wide	Emboss pitch	Tape specification	Notes
BC817	SOT23	Tape & Reel 3000pcs /7" Reel	8mm	4mm	Conductive	

PACKAGE DIMENSIONS

Package Outline :SOT23



SOT23 Package Outline

Symbol	Dimensions in mm Min.	Max.
A	2.800	3.040
B	2.100	2.640
C	1.200	1.400
D	0.890	1.030
E	1.780	2.050
F	0.450	0.600
G	0.013	0.100
H	0.900	1.110
J	0.090	0.180
K	0.370	0.510

Note:
1.Habgen free ,EMC
2.Pb free solder
3:.Lead thickness solder plating
4.Lead frame CAC-5
5.Other Tolerance ±0.05
6.Dimensions are exclusiveof Burrs Mold Flash and Tie Bar extrusions
7.Unit :mm

NOTICE

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