

## BC817

### Surface mount switching diode

#### Features

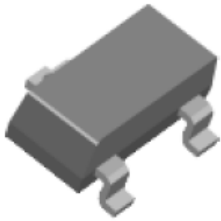
- For general AF application.
- Complementary PNP type available BC807.
- High collector current, high current gain.
- Low collector-emitter saturation voltage.
- RoHS compliant package

#### Applications

- General purpose medium power amplifier.
- Switching requiring collector currents up to 1.2mA.

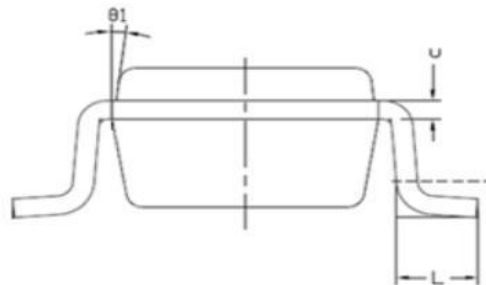
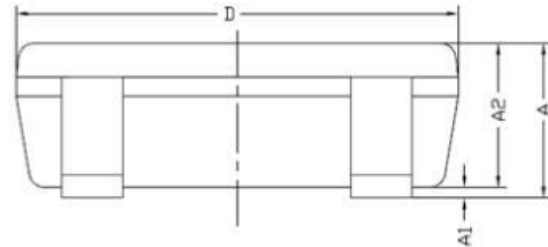
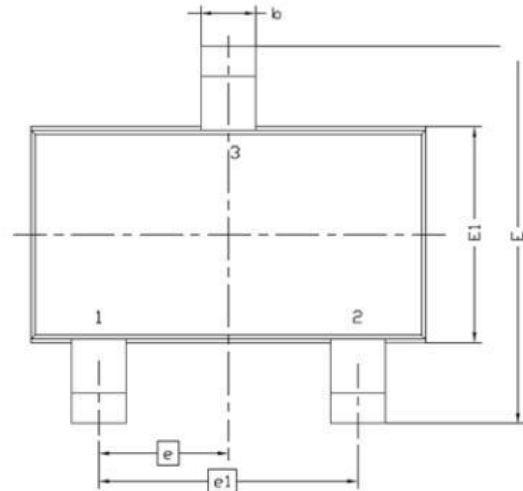
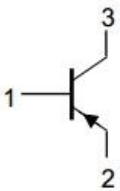
#### Packing & Order Information

3,000/Reel



**RoHS  
COMPLIANT**

#### Graphic symbol



Symbol	MILLIMETERS	
	MIN	MAX
A	0.8	1.2
A1	0	0.1
A2	0.7	1.1
b	0.3	0.5
c	0.1	0.2
D	2.7	3.1
E	2.6	3
E1	1.4	1.8
e	0.95 BSC	
e1	1.9 BSC	
L	0.3	0.6
θ1	7° NOM	

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### ORDERING INFORMATION

Type No.	Marking	Package Code
BC817-16	6A	SOD-123
BC817-25	6B	SOD-123
BC817-40	6C	SOD-123

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

#### MAXIMUM RATING @ Ta=25°C unless otherwise specified

Parameter	Symbol	Value	Unit
Collector-Base Voltage	$V_{CBO}$	50	V
Collector-Emitter Voltage	$V_{CEO}$	45	V
Emitter-Base Voltage	$V_{EBO}$	5	V
Collector Current -Continuous	$I_C$	500	mA
Collector Dissipation	$P_C$	300	mW
Junction and Storage Temperature	$T_j, T_{stg}$	-55 to +150	°C

#### ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Parameter	Conditions	Symbol	Min	Max	Unit
Collector-base breakdown voltage	$I_C=10\mu A$ $I_E=0$	$V_{(BR)CBO}$	50		V
Collector-emitter breakdown voltage	$I_C=10mA$ $I_B=0$	$V_{(BR)CEO}$	45		V
Emitter-base breakdown voltage	$I_E=1\mu A$ $I_C=0$	$V_{(BR)EBO}$	5		V
Collector cut-off current	$V_{CB}=45V$ $I_E=0$	$I_{CBO}$		0.1	$\mu A$
Emitter cut-off current	$V_{EB}=4V$ $I_C=0$ 0.1	$I_{EBO}$		0.1	$\mu A$
DC current gain	$V_{CE}=1V$ $I_C=100mA$	$h_{FE}$	100	600	
	$V_{CE}=1V$ $I_C=100mA$		40		
Collector-emitter saturation voltage	$I_C=500mA$ $I_B=50mA$	$V_{CE(sat)}$		0.7	V
Base-emitter saturation voltage	$I_C=500mA$ $I_B=50mA$	$V_{BE(sat)}$		1.2	V
Collector capacitance	$V_{CB}=10V, f=1MHz$	$C_{ob}$		10	pF
Transition frequency	$V_{CE}=5V$ $I_C=10mA$ $f=100MHz$	$f_T$	100		MHz

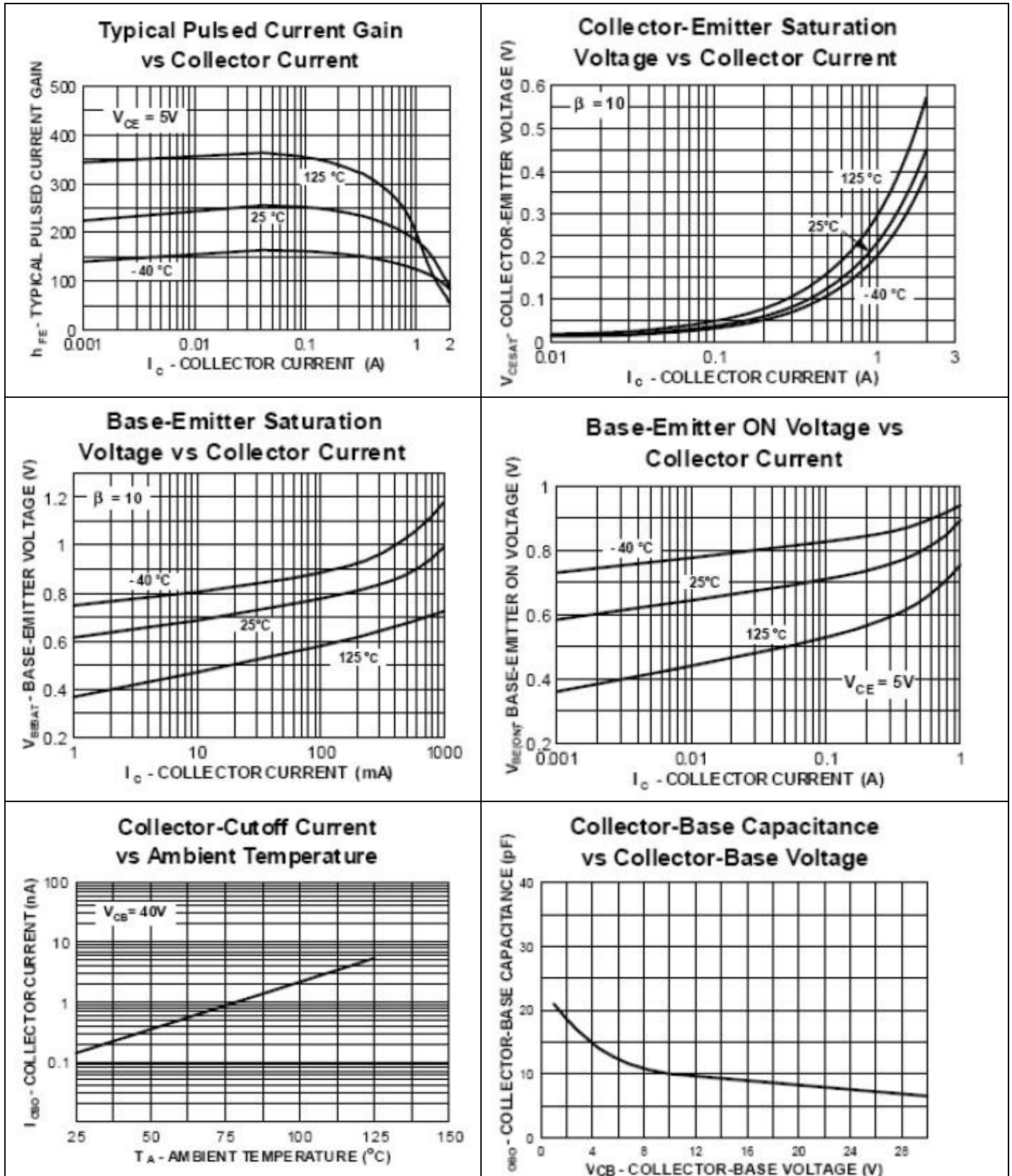
#### CLASSIFICATION OF HFE(1)

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

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■NPN General Purpose Amplifier



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### Disclaimer

ALL PRODUCT, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE

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