

**BC817-16W
BC817-25W
BC817-40W**

**NPN Silicon
General Purpose
Transistors**

Features

- Capable of 0.2Watts of Power Dissipation.
- Collector-current 0.5A
- Thermal Resistance From Junction To Ambient:625 °C/W
- Operating and storage junction temperature range: -55°C to +150°C
- Lead Free Finish/Rohs Compliant ("P"Suffix designates RoHS Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Halogen free available upon request by adding suffix "-HF"

Mechanical Data

- Case: SOT-323 Molded Plastic
- Device Marking: BC817-16W 6A
BC817-25W 6B
BC817-40W 6C

Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter	Min	Max	Units
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OFF CHARACTERISTICS

$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage ($I_C=10mA_{dc}, I_B=0$)	45	---	Vdc
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage ($I_C=10uA_{dc}, I_E=0$)	50	---	Vdc
$V_{(BR)EBO}$	Collector-Emitter Breakdown Voltage ($I_E=1.0uA_{dc}, I_C=0$)	5.0	---	Vdc
I_{CBO}	Collector Cutoff Current ($V_{CB}=20V_{dc}, I_E=0$)	---	0.1	μA_{dc}
I_{EBO}	Emitter Cutoff Current ($V_{EB}=5V_{dc}, I_C=0$)	---	0.1	μA_{dc}

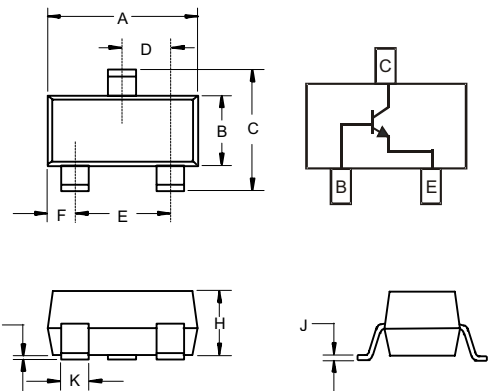
ON CHARACTERISTICS

$h_{FE(1)}$	DC Current Gain ($I_C=100mA_{dc}, V_{CE}=1.0V_{dc}$) BC807-16W BC807-25W BC807-40W	100 160 250	250 400 600	---
$h_{FE(2)}$	DC Current Gain ($I_C=500mA_{dc}, V_{CE}=1.0V_{dc}$)	40	---	---
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage ($I_C=500mA_{dc}, I_B=50mA_{dc}$)	---	0.7	Vdc
$V_{BE(sat)}$	Base-Emitter Saturation Voltage ($I_C=500mA_{dc}, I_B=50mA_{dc}$)	---	1.2	Vdc
$V_{BE(on)}$	Base-Emitter Voltage ($I_C=500mA_{dc}, V_{CE}=1V_{dc}$)	---	1.2	Vdc

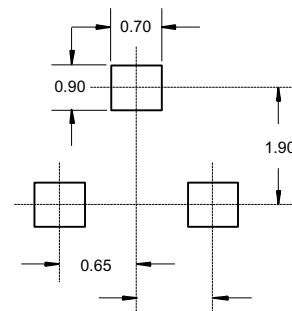
SMALL SIGNAL CHARACTERISTICS

f_T	Current-Gain-Bandwidth Product ($V_{CE}=5.0V, f=100MHz, I_C=10mA$)	100	---	MHz
C_c	Collector capacitance ($V_{CB}=10V, f=1MHz$)		5	pF

SOT-323



DIM	DIMENSIONS				NOTE
	INCHES		MM		
A	.071	.087	1.80	2.20	
B	.045	.053	1.15	1.35	
C	.079	.087	2.00	2.20	
D	.026 Nominal		0.65Nominal		
E	.047	.055	1.20	1.40	
F	.012	.016	.30	.40	
G	.000	.004	.000	.100	
H	.035	.039	.90	1.00	
J	.004	.010	.100	.250	
K	.012	.016	.30	.40	





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Ordering Information :

Device	Packing
Part Number-TP	Tape & Reel; 3 Kpcs/Reel

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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