



Micro Commercial Components

Micro Commercial Components  
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**BC817-16W**  
**BC817-25W**  
**BC817-40W**

## 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 ( $I_C=10mA, I_B=0$ )	45	---	Vdc
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage ( $I_C=10mA, I_E=0$ )	50	---	Vdc
$V_{(BR)EBO}$	Collector-Emitter Breakdown Voltage ( $I_E=1.0mA, I_C=0$ )	5.0	---	Vdc
$I_{CBO}$	Collector Cutoff Current ( $V_{CB}=20Vdc, I_E=0$ )	---	0.1	$\mu A$
$I_{EBO}$	Emitter Cutoff Current ( $V_{EB}=5Vdc, I_C=0$ )	---	0.1	$\mu A$

#### ON CHARACTERISTICS

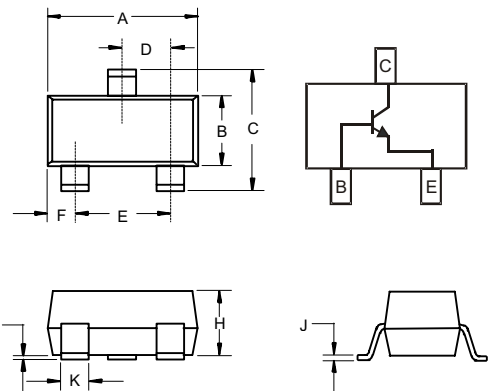
$h_{FE(1)}$	DC Current Gain ( $I_C=100mA, V_{CE}=1.0Vdc$ ) BC817-16W BC817-25W BC817-40W	100 160 250	250 400 600	---
$h_{FE(2)}$	DC Current Gain ( $I_C=500mA, V_{CE}=1.0Vdc$ )	40	---	---
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage ( $I_C=500mA, I_B=50mA$ )	---	0.7	Vdc
$V_{BE(sat)}$	Base-Emitter Saturation Voltage ( $I_C=500mA, I_B=50mA$ )	---	1.2	Vdc
$V_{BE(on)}$	Base-Emitter Voltage ( $I_C=500mA, V_{CE}=1Vdc$ )	---	1.2	Vdc

#### SMALL SIGNAL CHARACTERISTICS

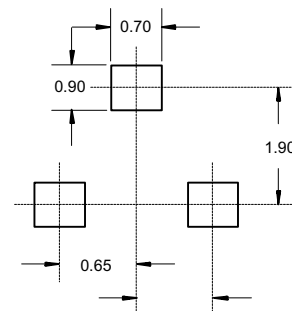
$f_T$	Current-Gain-Bandwidth Product ( $V_{CE}=5.0V, f=100MHz, I_C=10mA$ )	100	---	MHz
$C_c$	Collector capacitance ( $V_{CB}=10V, f=1MHz$ )		5	pF

## NPN Silicon General Purpose Transistors

### SOT-323



DIM	DIMENSIONS				NOTE
	INCHES		MM		
A	.071	.087	1.80	2.20	
B	.045	.053	1.15	1.35	
C	.083	.096	2.10	2.45	
D	.026 Nominal		0.65 Nominal		
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	.006	.016	.15	.40	





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### Ordering Information :

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

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

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