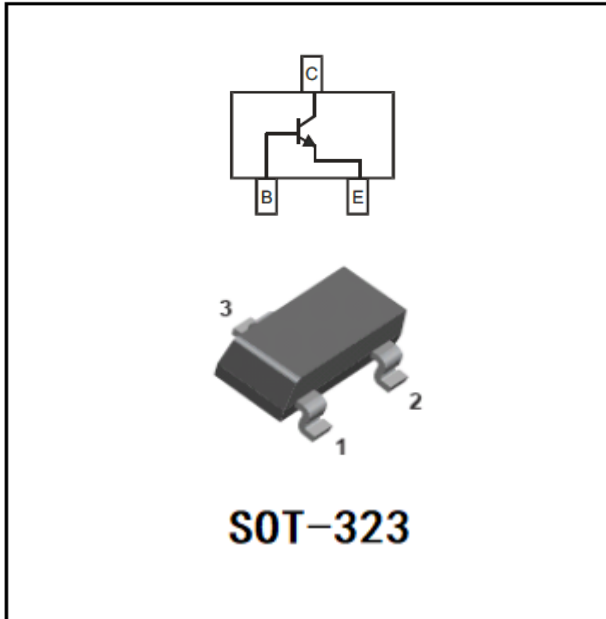


NPN General Purpose Amplifier



Features

- Capable of 0.2Watts($T_A=25^{\circ}\text{C}$) of Power Dissipation
- Epoxy meets UL-94 V-0 flammability rating
- Halogen free available upon request by adding suffix "HF"
- Moisture Sensitivity Level 1
- Device Marking:

BC817-16W	6A
BC817-25W	6B
BC817-40W	6C

■ Maximum Ratings ($T_A=25^{\circ}\text{C}$ Unless otherwise specified)

Item	Symbol	Value	Unit
Collector-Emitter Voltage	V_{CE0}	45	V
Collector-Base Voltage	V_{CBO}	50	V
Emitter-Base Voltage	V_{EBO}	5.0	V
Collector Current	I_C	0.5	A
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	625	$^{\circ}\text{C}/\text{W}$
Operation Junction Temperature	T_j	-55 to +150	$^{\circ}\text{C}$
Storage Temperature	T_{stg}	-55 to +150	$^{\circ}\text{C}$



BC817-16W THRU BC817-40W

■ Electrical Characteristics (Ta=25°C unless otherwise specified)

Item	Symbol	Unit	Conditions	MIN	MAX
Collector-Emitter Voltage	V_{CE0}	V	$I_C=10\text{mAdc}$, $I_B=0$	45	
Collector-Base Voltage	V_{CBO}	V	$I_C=10\text{uAdc}$, $I_E=0$	50	
Emitter-Base Voltage	V_{EBO}	V	$I_E=1.0\text{uAdc}$, $I_C=0$	5.0	
Emitter-base Cut-off Current	I_{EBO}	uAdc	$V_{EB}=4.0\text{Vdc}$, $I_C=0$		0.1
Collector-base Cut-off Current	I_{CBO}	uAdc	$V_{CB}=45\text{Vdc}$, $I_E=0$		0.1
DC Current Gain	$h_{FE(1)}$		$I_C=100\text{mAdc}$, $V_{CE}=1.0\text{Vdc}$	100	600
	$h_{FE(2)}$		$I_C=500\text{mAdc}$, $V_{CE}=1.0\text{Vdc}$	40	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	V	$I_C=500\text{mAdc}$, $I_B=50\text{mAdc}$		0.7
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	V	$I_C=500\text{mAdc}$, $I_B=50\text{mAdc}$		1.2

■ Small-signal Characteristics

Item	Symbol	Unit	Conditions	Min	Max
Transition frequency	f_T	MHz	$I_C=10\text{mAdc}$, $V_{CE}=5.0\text{Vdc}$, $f=100\text{MHz}$	100	

■ Classification of h_{FE}

Rank	BC817-16W	BC817-25W	BC817-40W
Range	100-250	160-400	250-600

■ Ordering Information (Example)

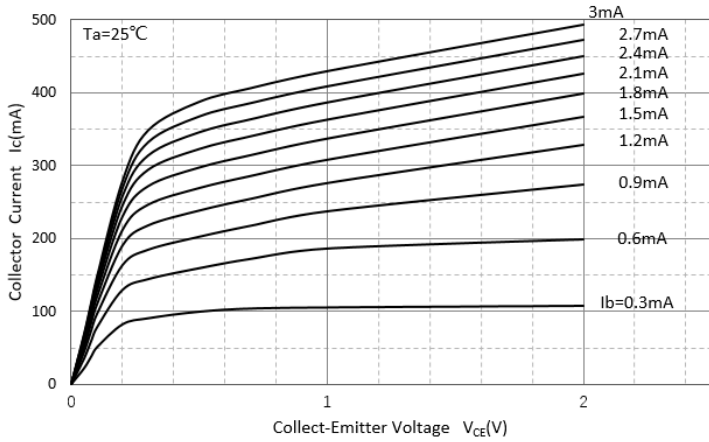
Prefered P/N	Packing Code	Unit Weight(G)	Minimum Package(Pcs)	Inner Box Quantity(Pcs)	Outer Carton Quantity(Pcs)	Delivery Mode
BC817-16W THRU BC817-40W	F2	Approximate 0.008	3000	30000	120000	7" reel



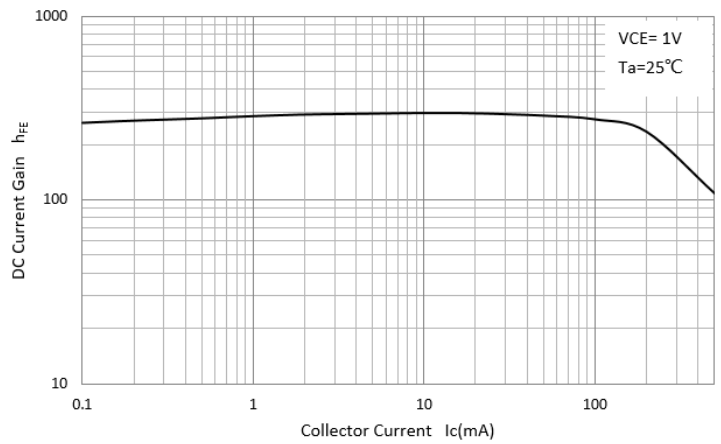
BC817-16W THRU BC817-40W

■ Characteristics (Typical)

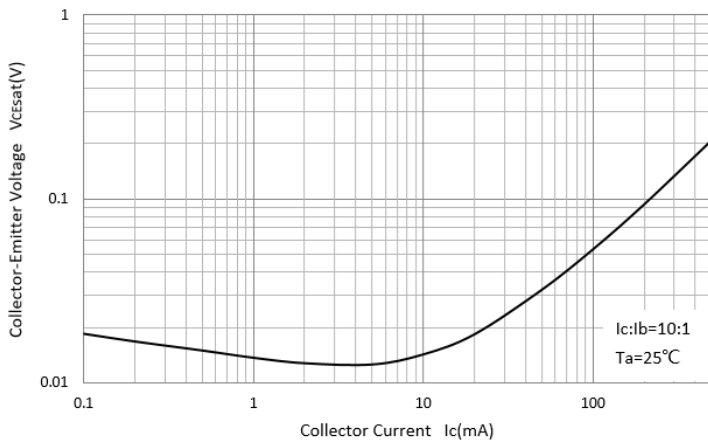
Static Characteristic



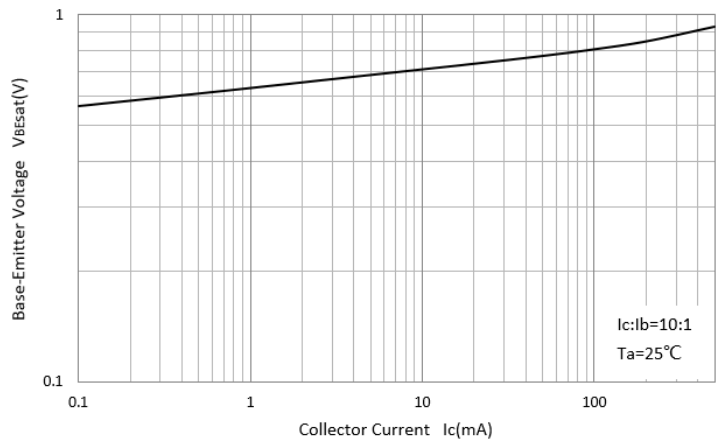
DC Current Gain



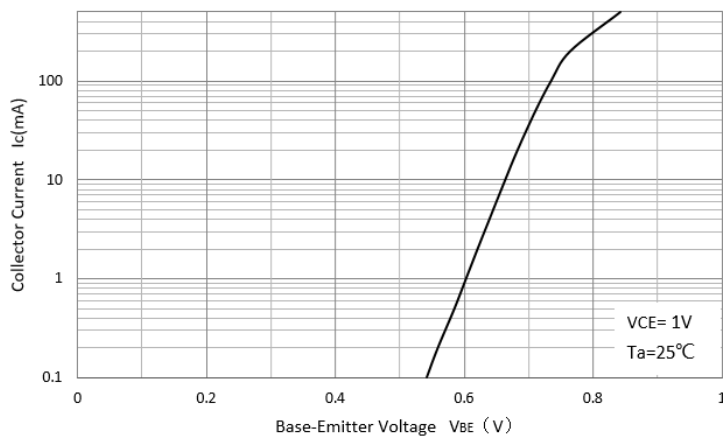
Collector-Emmitter Saturation Voltage



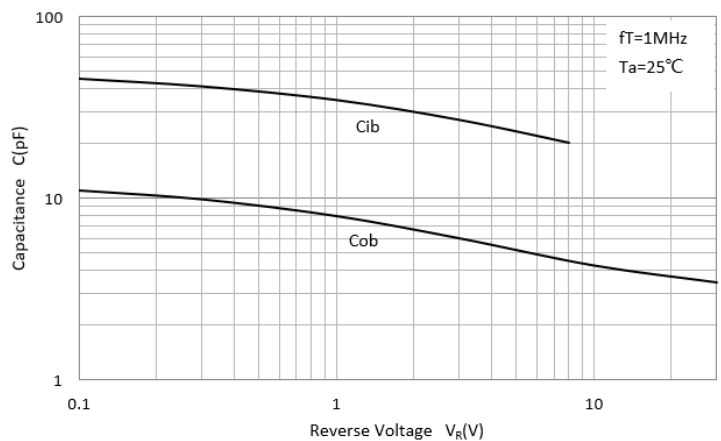
Base-Emmitter Saturation Voltage



Base-Emmitter On Voltage



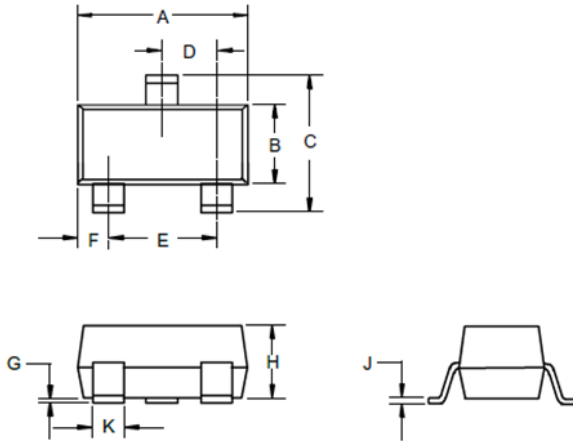
$C_{ob}/C_{ib}-V_{CB}/V_{EB}$





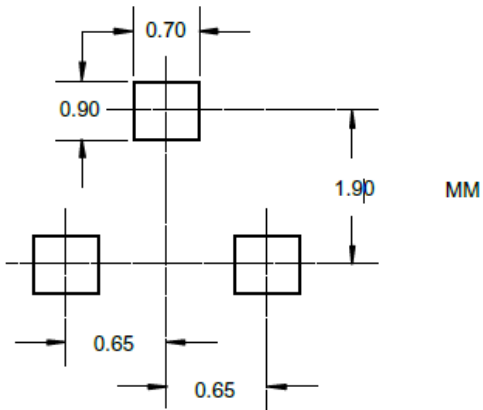
BC817-16W THRU BC817-40W

■ SOT-323 Package Outline Dimensions



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

■ SOT-323 Soldering Footprint





BC817-16W THRU BC817-40W

Disclaimer

The information presented in this document is for reference only. Yangzhou Yangjie Electronic Technology Co., Ltd. reserves the right to make changes without notice for the specification of the products displayed herein to improve reliability, function or design or otherwise.

The product listed herein is designed to be used with ordinary electronic equipment or devices, and not designed to be used with equipment or devices which require high level of reliability and the malfunction of which would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), Yangjie or anyone on its behalf, assumes no responsibility or liability for any damages resulting from such improper use of sale.

This publication supersedes & replaces all information previously supplied. For additional information, please visit our website [http:// www.21yangjie.com](http://www.21yangjie.com) , or consult your nearest Yangjie's sales office for further assistance.

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Bipolar Transistors - BJT category](#):

Click to view products by [Yangjie manufacturer](#):

Other Similar products are found below :

[619691C](#) [MCH4017-TL-H](#) [MMBT-2369-TR](#) [BC546/116](#) [BC557/116](#) [BSW67A](#) [NJVMJD148T4G](#) [NTE123AP-10](#) [NTE153MCP](#) [NTE16](#)
[NTE195A](#) [NTE92](#) [C4460](#) [2N4401-A](#) [2N6728](#) [2SA1419T-TD-H](#) [2SA2126-E](#) [2SB1204S-TL-E](#) [2SC2712S-GR,LF](#) [2SC5488A-TL-H](#)
[2SD2150T100R](#) [SP000011176](#) [2N2907A](#) [2N3904-NS](#) [2N5769](#) [2SC2412KT146S](#) [2SD1816S-TL-E](#) [CPH6501-TL-E](#) [MCH4021-TL-E](#)
[MJE340](#) [US6T6TR](#) [NJL0281DG](#) [732314D](#) [CPH3121-TL-E](#) [CPH6021-TL-H](#) [873787E](#) [IMZ2AT108](#) [UMX21NTR](#) [MCH6102-TL-E](#) [FP204-](#)
[TL-E](#) [NJL0302DG](#) [2N3583](#) [2SA2014-TD-E](#) [2SC2812-5-TB-E](#) [30A02MH-TL-E](#) [NSV40301MZ4T1G](#) [NTE13](#) [NTE26](#) [NTE282](#) [NTE323](#)