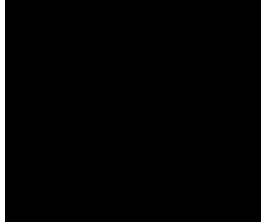




NPN General Purpose Amplifier



SOT-323

Features

Epoxy meets UL-94 V-0 flammability rating and halogen free
Moisture Sensitivity Level : 1

Mechanical Data

Case: SOT-323

Terminals: Tin plated leads, solderable per J-STD-002 and JESD22-B102

Marking:

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

Maximum Ratings (Ta=25 unless otherwise noted)

Item	Symbol	Unit	Value
Collector-Emitter Voltage	V_{CEO}	V	45
Collector-Base Voltage	V_{CBO}	V	50
Emitter-Base Voltage	V_{EBO}	V	5
Collector Current -Continuous	I_C	mA	500
Total Device Dissipation (*)	P_D	mW	200
Thermal Resistance Junction to Ambient (*)	R_{thJA}	K/W	625
Junction Temperature	T_j		-55 to +150
Storage Temperature	T_{STG}		-55 to +150

(*) Device mounted on FR-4 PCB 1.0 x 1.0 x 0.06 inch.



BC817-16WQ THRU BC817-40WQ

Electrical Characteristics (Ta=25 unless otherwise noted)

Item	Symbol	Unit	Conditions	Min	Typ	Max
Collector-emitter breakdown voltage	V_{CEO}	V	$I_C=10mA, I_B=0$	45		
Collector-base breakdown voltage	V_{CBO}	V	$I_C=10\mu A, I_E=0$	50		
Emitter-base breakdown voltage	V_{EBO}	V	$I_E=1\mu A, I_C=0$	5		
Emitter-base cut-off current	I_{EBO}	μA	$V_{EB}=4V, I_C=0$			0.1
Collector-base cut-off current	I_{CBO}	μA	$V_{CB}=45V, I_E=0$			0.1
DC current gain	h_{FE}		BC817-16WQ	$V_{CE}=1V, I_C=100mA$	100	250
			BC817-25WQ		160	400
			BC817-40WQ		250	600
DC current gain	h_{FE}		$V_{CE}=1V, I_C=500mA$	40		
Collector-emitter saturation voltage	$V_{CE(sat)}$	V	$I_C=500mA, I_B=50mA$			0.7
Base-emitter saturation voltage	$V_{BE(sat)}$	V	$I_C=500mA, I_B=50mA$			1.2

Other

Item	Symbol	Unit	Conditions	Min	Typ	Max
Transition frequency	f_T	MHz	$V_{CE}=5V, I_C=10mA, f=100MHz$	100		

Ordering Information (Example)

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
BC817-16WQ THRU BC817-40WQ	F2	Approximate 0.005	3000	30000	120000	7" reel



BC817-16WQ THRU BC817-40WQ

Fig 7 - Collect-Emittter Saturation Voltage

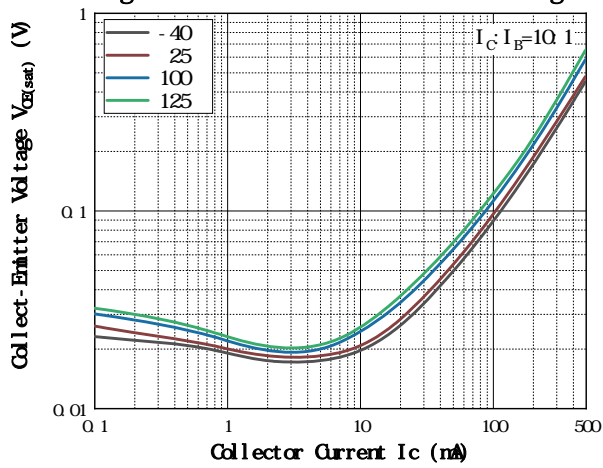
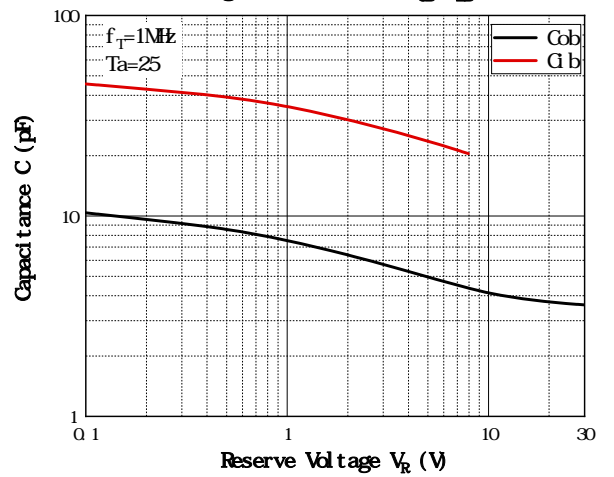


Fig 10 - $C_{ob}/C_{ib} - V_{CE}/V_{BE}$





BC817-16WQ THRU BC817-40WQ

SOT-323 Package Outline Dimensions



BC817-16WQ THRU BC817-40WQ

Disclaimer