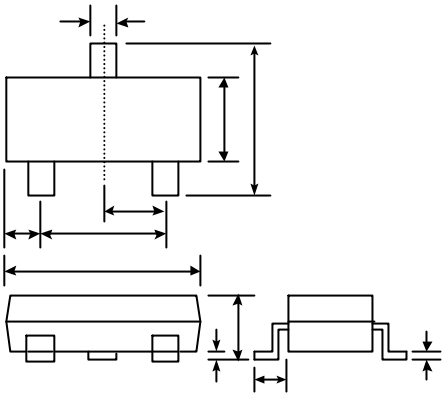
BC817-16 / -25 / -40

NPN SURFACE MOUNT SMALL SIGNAL TRANSISTOR

Features

mW Power Dissipation
Ideally Suited for Automatic Insertion
Epitaxial Planar Die Construction
For Switching, AF Driver and Amplifier Applications
Complementary PNP Types Available (BC807)



SOT-23		
	0.013	
	0.076	0.178
All Dimensions in mm		

Mechanical Data

Case: SOT-23, Molded Plastic
Terminals: Solderable per MIL-STD-202, Method 208
Pin Connections: See Diagram
Marking: BC817-16
BC817-25
BC817-40
Aprox. Weight: 0.008 grams
Mounting Position: Any

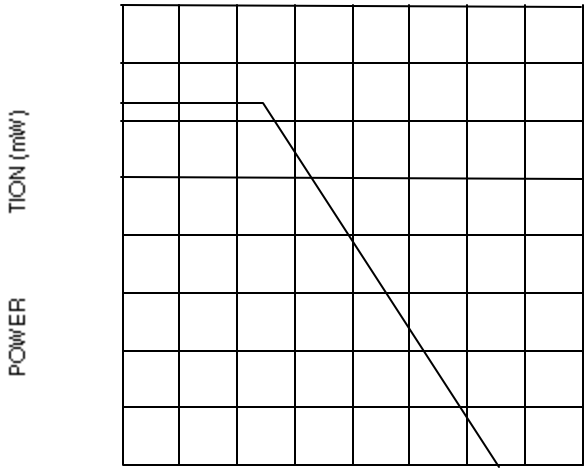
Maximum Ratings @25 C unless otherwise specified

Characteristic	Symbol	Value	
Collector-Emitter Voltage			
Emitter-Base Voltage			
Collector Current			
Peak Collector Current			
Peak Emitter Current			
Power Dissipation at C (Note 1)			
Operating and Storage Temperature Range		-65 to +150	

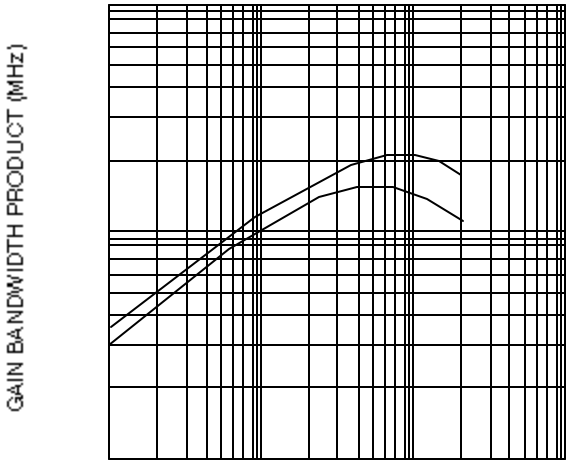
Electrical Characteristics @25 C unless otherwise specified

Characteristic	Symbol				Test Condition
DC Current Gain Current Gain Group -16					= 1.0V, I = 100mA
Current Gain Group -16			— — —	—	= 1.0V, I = 300mA
Thermal Resistance, Junction to Substrate Backside		—			Note 1
Thermal Resistance, Junction to Ambient Air		—			Note 1
Collector-Emitter Saturation Voltage	CE(SAT)	—			= 500mA, = 50mA
Base-Emitter Voltage		—			= 1.0V, I = 300mA
Collector-Emitter Cutoff Current		—			= 45V = 25V, = 150
Emitter-Base Cutoff Current		—			= 4.0V
Gain Bandwidth Product			—		= 5.0V, I = 10mA, f = 50MHz
Collector-Base Capacitance		—			= 10V, f = 1.0MHz

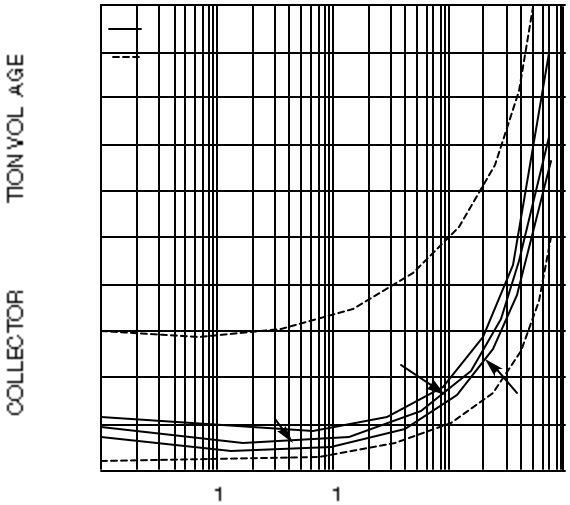
Notes: 1. Device mounted on Ceramic Substrate 0.7mm; 2.5cm



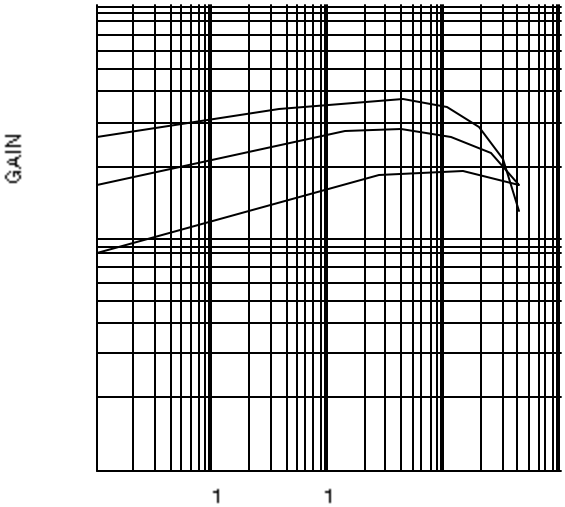
Power Deratin Curve



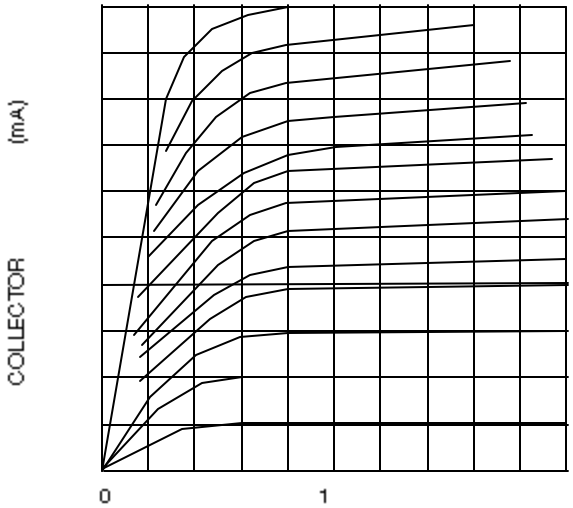
Gain-Bandwidth Product Collector Current



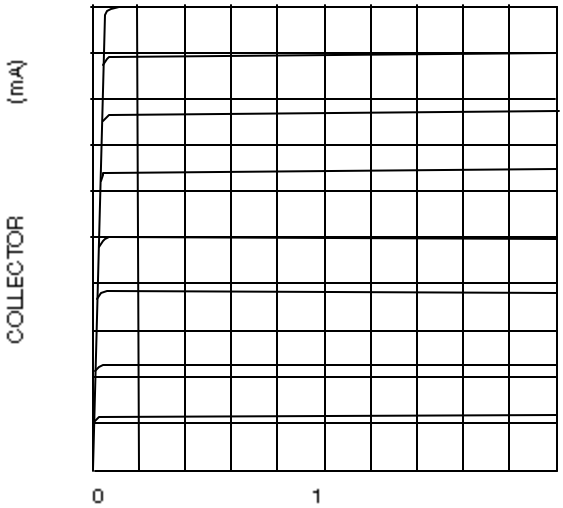
Collector Collector Current



Current Collector Current



Emitter-Collector Characteristics



Emitter-Collector Characteristics