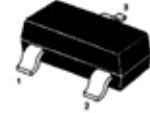


**FUKUCOM COMPANY LTD.****福 靈 有 限 公 司**FLAT P, 3/F., EVEREST INDUSTRIAL CENTRE, 396 KWUN TONG ROAD,  
KWUN TONG, KOWLOON, HONG KONG.

TEL: 852-2790 0314 FAX: 852-2790 0206

**BBC817 -16/ -25/ -40****NPN Epitaxial Silicon Transistor  
SURFACE MOUNT SMALL  
SIGNAL TRANSISTORS**1. Base 2. Emitter 3. Collector  
SOT-23 Plastic Package**Absolute Maximum Ratings** Ta=25°C unless otherwise noted

Symbol	Characteristic	Value	Units
V <sub>CEO</sub>	Collector-Emitter Voltage	45	V
V <sub>EBO</sub>	Emitter-Base Voltage	5	V
I <sub>CM</sub>	Peak Collector Current	1000	mA
I <sub>EM</sub>	Peak Emitter Current	1000	mA
I <sub>C</sub>	Collector Current	800	mA
P <sub>D</sub>	Collector Dissipation Ta=25°C *	310	mW
T <sub>J</sub>	Junction Temperature	150	°C
T <sub>STG</sub>	Storage Temperature	-65~150	°C

**Electrical Characteristics** Ta=25°C unless otherwise noted

Symbol	Characteristic	Test Condition	Min.	Max.	Units
BV <sub>CBO</sub>	Collector-Base Breakdown Voltage	V <sub>CE</sub> =1.0V; I <sub>C</sub> =100mA			
	-16		10	250	
	-25		160	400	
	-40		250	600	
BV <sub>CBO</sub>	Collector-Base Breakdown Voltage	V <sub>CE</sub> =1.0V; I <sub>C</sub> =300mA			
	-16		60		
	-25		100		
	-40		170		
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> =500mA; I <sub>B</sub> =50mA		0.7	V
V <sub>BE</sub>	Base-Emitter Voltage	V <sub>CE</sub> =1V; I <sub>C</sub> =300mA		1.2	V
I <sub>CES</sub>	Collector-Emitter Cutoff	V <sub>CE</sub> =45V		100	nA
		V <sub>CE</sub> =25V; T <sub>J</sub> =150°C		5.0	uA
I <sub>EBO</sub>	Emitter-Base Cutoff Current	V <sub>EB</sub> =4.0V		100	nA
f <sub>T</sub>	Gain Bandwidth Product	V <sub>CE</sub> =5V; I <sub>C</sub> =10mA; f=50MHz	100		MHz
C <sub>CBO</sub>	Collector-Base Capacitance	V <sub>CB</sub> =10V; f=1MHz		12	pF

\*Total Device Dissipation: FR= 1x0.75x0.062 in Board, Derate 25°C

#Pulse Test: Pulse Width &lt;300uS, Duty cycle &lt;2%

Device Marking:

BC817-16 = 6A

BC817-25 = 6B

BC817-40 = 6C



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### BBC817 -16/ -25/ -40

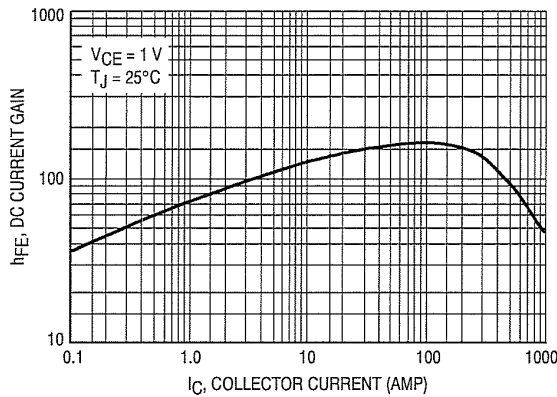


Figure 1. DC Current Gain

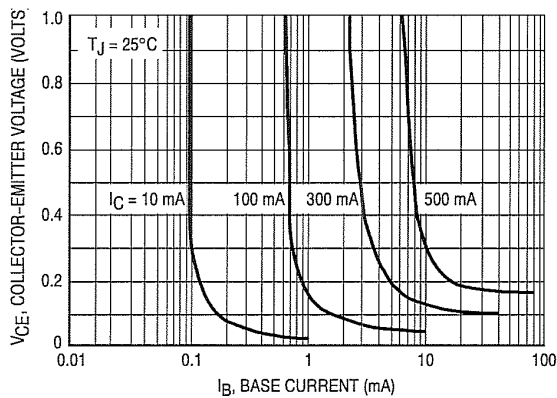


Figure 2. Saturation Region

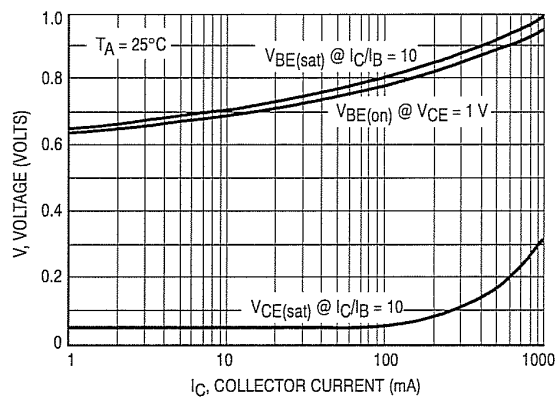


Figure 3. "On" Voltages

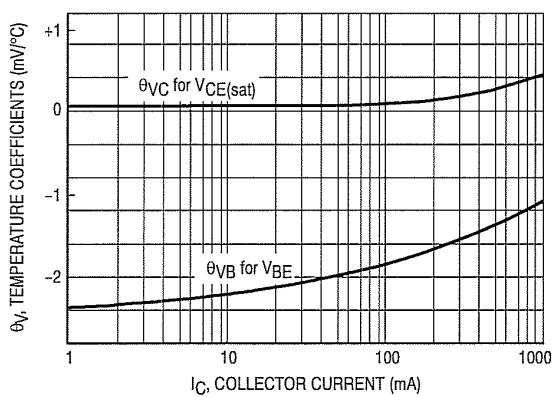


Figure 4. Temperature Coefficients

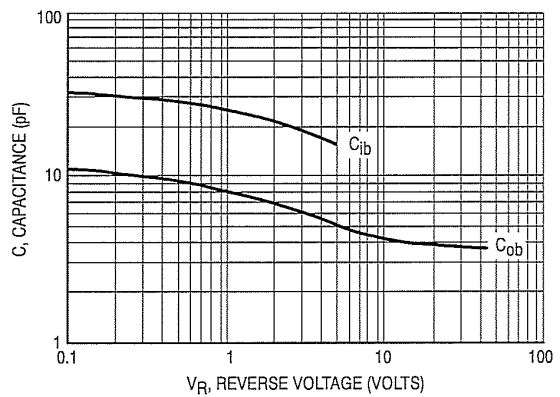


Figure 5. Capacitances