

BC477

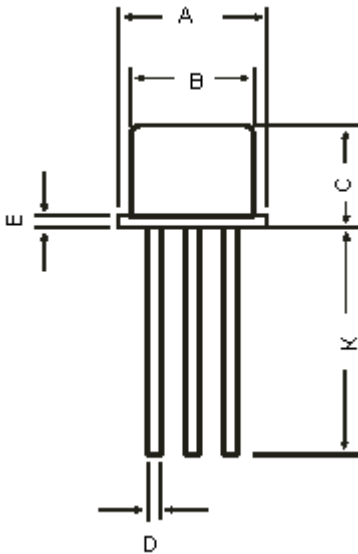
Low Power Bipolar Transistors



Features:

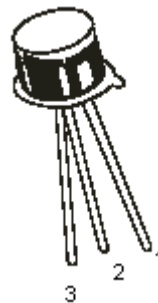
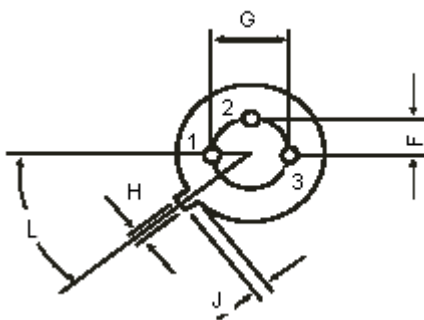
- PNP Silicon Planar Epitaxial Transistors.
- General Purpose Audio Amplifier.

TO-18 Metal Can Package



Dimensions	Minimum	Maximum
A	5.24	5.84
B	4.52	4.97
C	4.31	5.33
D	0.40	0.53
E	-	0.76
F	-	1.27
G	-	2.97
H	0.91	1.17
J	0.71	1.21
K	12.70	-
L	45°	

Dimensions : Millimetres



Pin Configuration:

1. Emitter
2. Base
3. Collector



Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Description	Symbol	BC477	Unit
Collector-Emitter Voltage	V_{CES}	90	V
	V_{CEO}	80	
Emitter Base Voltage	V_{EBO}	6.0	
Collector Current	I_C	150	mA
Power Dissipation at $T_a = 25^\circ\text{C}$ Power Dissipation at $T_C = 25^\circ\text{C}$	P_{tot}	0.3 1.20	W
Junction Temperature	T_J	200	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55 to +200	
Thermal Resistance			
Junction to Case	$R_{th(j-c)}$	146	$^\circ\text{C/W}$
Junction to Ambient	$R_{th(j-a)}$	485	

Electrical Characteristics ($T_a = 25^\circ\text{C}$ unless otherwise specified)

Description	Symbol	Test Condition	Minimum	Typical	Maximum	Unit
Collector Cut off Current	I_{CES}	$V_{CE} = 70\text{V}, V_{BE} = 0$ $T_a = 125^\circ\text{C}$	-	-	10	nA
		$V_{CE} = 70\text{V}, V_{BE} = 0$	-	-	10	μA
Emitter Cut off Current	I_{EBO}	$V_{EB} = 4\text{V}, I_C = 0$	-	-	10	nA
Collector-Emitter Voltage	V_{CES} V_{CEO}	$I_C = 10\mu\text{A}, V_{BE} = 0$	90	-	-	V
		$I_C = 5\text{mA}, I_B = 0$	80	-	-	
Emitter-Base Voltage	V_{EBO}	$I_E = 10\mu\text{A}, I_C = 0$	6.0	-	-	
Collector Emitter Saturation Voltage	$V_{CE(Sat)}^*$	$I_C = 10\text{mA}, I_B = 0.5\text{mA}$	-	-	0.25	
		$I_C = 100\text{mA}, I_B = 5\text{mA}$	-	0.3	-	
Base Emitter On Voltage	$V_{BE(on)}^*$	$I_C = 2\text{mA}, V_{CE} = 5\text{V}$	0.55	-	0.75	
Base Emitter Saturation Voltage	$V_{BE(Sat)}^*$	$I_C = 10\text{mA}, I_B = 0.5\text{mA}$	-	-	0.90	
		$I_C = 100\text{mA}, I_B = 5\text{mA}$	-	0.90	-	
DC Current	h_{FE}^*	$I_C = 10\mu\text{A}, V_{CE} = 5\text{V}$	30	-	-	
		$I_C = 2\text{mA}, V_{CE} = 5\text{V}$	110	-	250	
		$I_C = 10\text{mA}, V_{CE} = 5\text{V}$	-	160	-	
Small Signal Current Gain	h_{fe}	$I_C = 2\text{mA}, V_{CE} = 5\text{V},$ $f = 1\text{kHz}$	125	-	260	
		$I_C = 10\text{mA}, V_{CE} = 5\text{V},$ $f = 20\text{MHz}$	-	7.5	-	

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Electrical Characteristics ($T_a = 25^\circ\text{C}$ unless otherwise specified)

Description	Symbol	Test Condition	Minimum	Maximum	Unit
Dynamic Characteristics					
Collector Base Capacitance	C_{cbo}	$I_E = 0, V_{CB} = 5V$	-	6.0	pF
Emitter Base Capacitance	C_{ebo}	$I_C = 0, V_{EB} = 0.5V$	-	15	pF
Noise Figure	NF	$V_{CE} = 5V, I_C = 200\mu A$ $R_g = 2k\Omega, f = 1kHz$ $B = 200Hz$	-	10	dB

*Pulsed: Pulse Duration = 300 μs , Duty Cycle = 1%.

Specifications

V_{CEO} (V)	V_{CBO} maximum (V)	I_C (A)	h_{FE} minimum at $I_C = 2mA$	f_T minimum (V)	P_{tot} (mW)	Type	Package	Part Number
80	90	0.15	110	100	360	PNP	TO-18	BC477



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