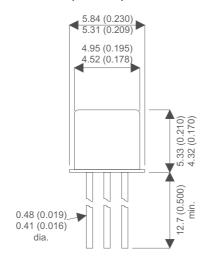
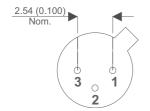


BC177 BC178 BC179

MECHANICAL DATA

Dimensions in mm (inches)





TO-18 METAL PACKAGE

Underside View

PIN 1 – Emitter PIN 2 – Base PIN 3 – Collector

GENERAL PURPOSE SMALL SIGNAL PNP BIPOLAR TRANSISTOR

APPLICATIONS

The BC 177, BC 178 & BC 179 are silicon epitaxial planar PNP transistors in TO-18 metal case. They are suitablefor use in driver audio stages, low noise input audio stages and as low power, high gain general purpose transistors.

FEATURES

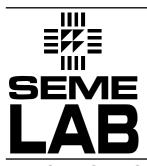
- SILICON NPN
- HERMETICALLY SEALED TO18
- SCREENING OPTIONS AVAILABLE

ABSOLUTE MAXIMUM RATINGS (T _A = 25°C unless otherwise stated)			BC178	BC179
$\overline{V_{CBO}}$	Collector – Base Continuous Voltage	-50V	-30V	-25V
V_{CEO}	Collector – Emitter Continuous Voltage With Zero Base Current	-45V	-25V	-20V
V_{CES}	Collector - Emitter Continuous Voltage With Base Shortcircuited to Emitter	-50V	-30V	-25V
V_{EBO}	Emitter – Base Continuous Voltage Reverse Voltage	-5V		
I_{C}	Continuous Collector Current	-0.1A		
P_{D}	Power Device Dissipation @ T _A = 25°C	0.3W		
	Derate above 25°C	500W/°C 0.75W		
P_{D}	Power Device Dissipation @ T _C = 25°C,			
	Derate above 25°C	200W/°C		
$T_{j,}T_{stg}$	Operating and Storage Junction to Case	-65 to +175°C		

Semelab Plc reserves the right to change test conditions, parameter limits and package dimensions without notice. Information furnished by Semelab is believed to be both accurate and reliable at the time of going to press. However Semelab assumes no responsibility for any errors or omissions discovered in its use. Semelab encourages customers to verify that datasheets are current before placing orders.

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BC177 BC178 BC179

ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise stated)

	Parameter	Test Conditions		Min.	Тур.	Max.	Unit	
ı	Collector-Emitter Leakage Current	$V_{CE} = -20V$ $V_{BE} = 0$				-100	nA	
I _{CES}			T _{amb} = 150°C			-10	μΑ	
V _{(BR)CBO}	Collector Base Breakdown Voltage	$I_C = -10\mu A$	BC177	-50			V	
			BC178	-30			V	
			BC179	-25				
	Collector Emitter Breakdown Voltage	$I_C = -2mA$	BC177	-45			V V	
$V_{(BR)CEO}$		I _E = 0	BC178	-25				
			BC179	-20				
V _{(BR)EBO}	Emitter Breakdown Voltage	$I_E = -10 \mu A$	I _C = 0	-5			V	
	DC Current Gain	V _{CE} = -5V	BC177A	125		260	_	
		$I_C = -2mA$	BC177B	240		500		
h		f = 1kHz	BC178A	125		260		
h _{FE}			BC178B	240		500		
			BC179A	125		260		
			BC179B	240		500		
V _{CE(sat)}	Collector – Emitter Saturation Voltage	$I_{B} = -0.5 \text{mA}$	I _C = -10mA		-0.075	-0.25	V	
		$I_B = -5mA$	$I_{C} = -100 \text{mA}$		-0.2		\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	
V	Base – Emitter Saturation Voltage	$I_{B} = -0.5 \text{mA}$	I _C = -10mA		-0.72	-0.8	V	
V _{BE(sat)}		$I_B = -5mA$	$I_{C} = -100 \text{mA}$		-0.86			
V _{BE(on)}	Base – Emitter on Voltage	$V_{CE} = -5V$	$I_C = -2mA -5V$	-0.55	-0.64	-0.75	V	
f _T	Transition Frequency	$V_{CE} = -5V$	I _C = -10mA		200		MHz	
		f = 100MHz						
	Noise Figure	V _{CE} = -5V	BC177		2	10	dB	
NF		f = 1kHz	BC178		2	10		
		$I_{C} = -0.2 \text{mA}$	BC179		1.2	4		
C _{cbo}	Collector Base Capacitance	$I_{C} = -0.2 \text{mA}$	V _{CB} = -10V		5.0		pF	

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