

BC182LB

- NPN General Purpose Amplifier

 This device is designed for general purpose amplifier application at collector currents to 100mA.
- Sourced from process 10.



1. Emitter 2. Collector 3. Base

Absolute Maximum Ratings $T_C=25^{\circ}C$ unless otherwise noted

Symbol	Parameter	Value	Units
V _{CEO}	Collector-Emitter Voltage	50	V
V _{CBO}	Collector-Base Voltage	60	V
V _{EBO}	Emitter-Base Voltage	6	V
I _C	Collector Current - Continuous	100	mA
T_{J} , T_{STG}	Storage Junction Temperature Range	- 55 ~ 150	°C

Electrical Characteristics $T_C=25$ °C unless otherwise noted

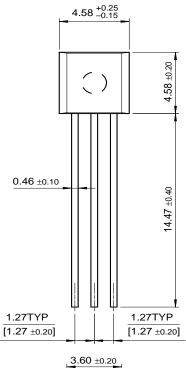
Symbol	Parameter	Test Condition	Min.	Тур.	Max.	Units
Off Chara	cteristics					
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage	$I_{C} = 2mA, I_{B} = 0$	50			V
V _{(BR)CBO}	Collector-Base Breakdown Voltage	$I_C = 10\mu A, I_E = 0$	60			V
V _{(BR)EBO}	Emitter-Base Breakdown Voltage	$I_E = 100 \mu A, I_C = 0$	6			V
I _{CBO}	Collector Cut-off Current	$V_{CB} = 50V, V_{BE} = 0$			15	nA
I _{EBO}	Emitter-Base Leakage Current	$V_{EB} = 4V, I_{E} = 0$			15	nA
On Chara	cteristics			•		
h _{FE}	DC Current Gain	$V_{CE} = 5V, I_{C} = 10\mu A$	40			
		$V_{CE} = 5V, I_{C} = 100mA$	80			
V _{CE} (sat)	Collector-Emitter Saturation Voltage	$I_C = 10mA, I_B = 0.5mA$			0.25	V
		$I_C = 100 \text{mA}, I_B = 5 \text{mA}$			0.6	
V _{BE} (sat)	Base-Emitter Saturation Voltage	$I_C = 100 \text{mA}, I_B = 5 \text{mA}$			1.2	V
V _{BE} (on)	Base-Emitter On Voltage	$V_{CE} = 5V$, $I_C = 2mA$	0.55		0.7	V
Dynamic (Characteristics					
f _T	Current Gain Bandwidth Product	V _{CE} = 5V, I _C = 10mA, f = 100MHz 150				MHz
C _{ob}	Output Capacitance	V _{CE} = 10V, I _C = 0, f = 1MHz			5	pF
h _{fe}	Small Signal Current Gain	$V_{CE} = 5V$, $I_C = 2mA$, $f = 1KHz$	240		500	
NF	Noise Figure	$V_{CE} = 5V, I_{C} = 0.2mA$			10	dB
		$R_S = 2K\Omega$, $f = 1KHz$, $BW = 200Hz$				

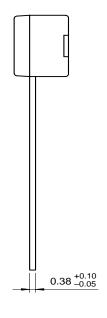
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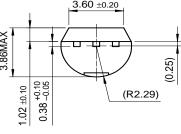
Thermal Characteristics T _A =25°C unless otherwise noted			
Symbol	Parameter	Max.	Units
P _D	Total Device Dissipation @T _A =25°C Derate above 25°C	350 2.8	mW mW/°C
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	357	mW/°C
$R_{\theta JA}$ $R_{\theta JC}$	Thermal Resistance, Junction to Case	125	°C/W

Package Dimensions

TO-92







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