New Jersey Semi-Conductor Products, Inc.

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BC182L

NPN General Purpose Amplifier

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

Absolute Maximum Ratings T_C=25°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	
lc	Collector Current - Continuous	100	mA	
T _{J,} T _{STG}	Storage Junction Temperature Range	- 55 ~ 150	<u>с</u>	

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	$I_{\rm C}$ = 10µA, $I_{\rm E}$ = 0	60	1		V
V _{(BR)EBO}	Emitter-Base Breakdown Voltage	l _E = 100μA, l _C = 0	6			V
Сво	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 eu
h _{FE}	DC Current Gain	$V_{CE} = 5V, I_C = 10\mu A$ $V_{CE} = 5V, I_C = 2mA$ $V_{CE} = 5V, I_C = 100mA$	40 120 80		500	
V _{CE} (sat)	Collector-Emitter Saturation Voltage	I _C = 10mA, I _B = 0.5mA I _C = 100mA, I _B = 5mA			0.25 0.6	V
V _{BE} (sat)	Base-Emitter Saturation Voltage	I _C = 100mA, I _B = 5mA			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
Cob	Output Capacitance	V _{CE} = 10V, I _C = 0, f = 1MHz			5	рF
h _{fe}	Small Signal Current Gain	V _{CE} = 5V, I _C = 2mA, f = 1KHz	240		500	
NF	Noise Figure	$V_{CE} = 5V, I_C = 0.2mA$ R _S = 2KΩ, f = 1KHz, BW = 200Hz			10	dB

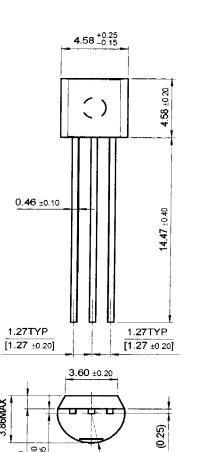
Thermal Characteristics TA=25°C unless otherwise noted

Symbol	Parameter	Max.	Units
PD	Total Device Dissipation @T _A =25°C	350	mW
-	Derate above 25°C	2.8	mW/°C
R _{0JA}	Thermal Resistance, Junction to Ambient	357	mW/∘C
R _{0JC}	Thermal Resistance, Junction to Case	125	°C/W



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

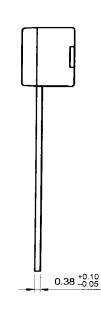
Quality Semi-Conductors



(R2.29)

3.86MAX

1.02 ±0.10 **0.38** ±0.10



TO-92