

BC182LA

SILICON NPN SMALL SIGNAL TRANSISTOR

$BV_{CEO} \dots 50 \text{ V (Min)}$

$h_{FE} \dots 80 \text{ (Min) @ } V_{CE} = 5.0 \text{ V, } I_C = 100 \text{ mA}$

ABSOLUTE MAXIMUM RATINGS (NOTE 1)

TEMPERATURES

Storage Temperature -55 Degrees C to 150 Degrees C

Operating Junction Temperature 150 Degrees C

POWER DISSIPATION (NOTES 2 & 3)

Total Device Dissipation at $T_A = 25 \text{ Deg C}$ 625 mW

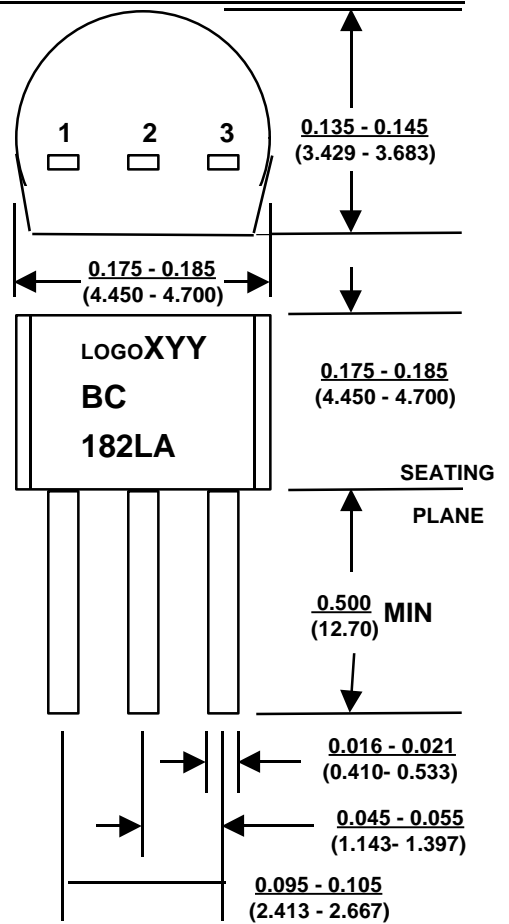
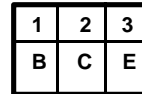
VOLTAGES & CURRENT

V_{CEO} Collector to Emitter 50 V

V_{CBO} Collector to Base 60 V

V_{EBO} Emitter to Base 5 V

I_C Collector Current 500 mA



ELECTRICAL CHARACTERISTICS (25 Degrees C Ambient Temperature unless otherwise stated)

SYM	CHARACTERISTICS	MIN	MAX	UNITS	TEST CONDITIONS
BV_{CBO}	Collector to Base Voltage	60		V	$I_C = 10 \text{ uA}$
BV_{CEO}	Collector to Emitter Voltage	50		V	$I_C = 2.0 \text{ mA}$
BV_{EBO}	Emitter to Base Voltage	5		V	$I_E = 10 \text{ uA}$
I_{CBO}	Collector Cutoff Current		15	nA	$V_{CB} = 50 \text{ V}$
I_{EBO}	Emitter Cutoff Current		15	nA	$V_{EB} = 4.0 \text{ V}$
h_{FE}	DC Current Gain	40 80			$V_{CE} = 5.0 \text{ V } I_C = 10 \text{ uA}$ $V_{CE} = 5.0 \text{ V } I_C = 100 \text{ mA}$
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage		0.25 0.6	V	$I_C = 10\text{mA } I_B = 0.5\text{mA}$ $I_C = 100\text{mA } I_B = 5.0\text{mA}$
$V_{BE(sat)}$	Base-Emitter Saturation Voltage		1.2	V	$I_C = 100\text{mA } I_B = 5.0\text{mA}$
$V_{BE(on)}$	Base -Emitter On Voltage	0.55	0.7	V	$V_{CE} = 5.0 \text{ V } I_C = 2\text{mA}$

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ELECTRICAL CHARACTERISTICS Con't (25 Degrees C Ambient Temperature unless otherwise stated)

SYM	CHARACTERISTICS	MIN	MAX	UNITS	TEST CONDITIONS
COB	Output Capacitance		5.0	pF	V _{CB} = 10 V, f = 1 MHz
f _T	Current Gain - Bandwidth Product	150		MHz	V _{CE} = 5 V I _c = 10 mA f = 100 Mhz
h _{fe}	Small Signal Current Gain	125	260	-	V _{CE} = 5 V, I _c =2.0 mA, f=1KHz
NF	Noise Figure		10	dB	V _{CE} = 5 V, I _c = 200 uA, R _g = 2 Kohms, f = 1 KHz

NOTES:

1. These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.
2. These are steady state limits. The factory should be consulted on applications involving pulsed or low duty cycle operations.
3. These ratings are based on a maximum junction temperature of 150 degrees C.