

BCW31
SURFACE MOUNT
NPN SILICON TRANSISTOR



SOT-23 CASE

DESCRIPTION:

The CENTRAL SEMICONDUCTOR BCW31, manufactured in the popular SOT-23 Surface Mount package, is an NPN General Purpose Switching and Amplification Transistor, suitable for applications requiring collector currents up to 100mA.

MARKING CODE: D1

MAXIMUM RATINGS: (T_A=25°C)

Collector-Base Voltage	
Collector-Emitter Voltage	
Emitter-Base Voltage	
Continuous Collector Current	
Power Dissipation	
Operating and Storage Junction Temperature	
Thermal Resistance	

SYMBOL

V _{CB0}	30
V _{CEO}	20
V _{EBO}	5.0
I _C	100
P _D	350
T _J , T _{stg}	-65 to +150
θ _{JA}	357

UNITS

V
V
V
mA
mW
°C
°C/W

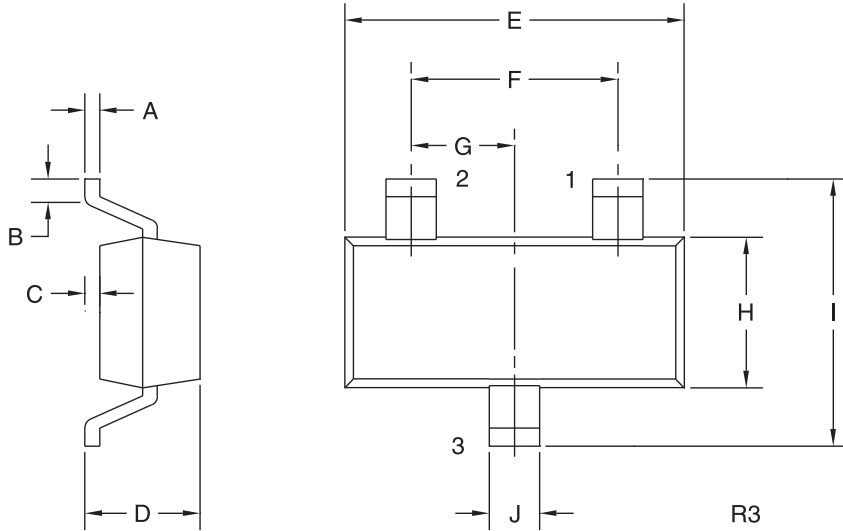
ELECTRICAL CHARACTERISTICS: (T_A=25°C)

SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
BV _{CB0}	I _C =10μA	30		V
BV _{CEO}	I _C =2.0mA	20		V
BV _{EBO}	I _E =10μA	5.0		V
V _{CE(SAT)}	I _C =10mA, I _B =0.5mA		0.25	V
V _{BE(ON)}	V _{CE} =5.0V, I _C =2.0mA	0.55	0.70	V
h _{FE}	V _{CE} =5.0V, I _C =2.0mA	110	220	
C _{ob}	V _{CB} =10V, I _E =0, f=1.0MHz		4.0	pF
NF	I _C =0.2mA, V _{CE} =5.0V, R _S =2.0kΩ, f=1.0MHz, BW=200Hz		10	dB

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SOT-23 CASE - MECHANICAL OUTLINE



LEAD CODE:

- 1) BASE
- 2) EMITTER
- 3) COLLECTOR

MARKING CODE: D1

SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.003	0.007	0.08	0.18
B	0.006	-	0.15	-
C	-	0.005	-	0.13
D	0.035	0.043	0.89	1.09
E	0.110	0.120	2.80	3.05
F	0.075		1.90	
G	0.037		0.95	
H	0.047	0.055	1.19	1.40
I	0.083	0.098	2.10	2.49
J	0.014	0.020	0.35	0.50

SOT-23 (REV: R3)

R3 (20-November 2009)