

2N2918

**DUAL SILICON  
NPN TRANSISTOR**



**TO-78 CASE**



www.centrasemi.com

**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR 2N2918 is a Dual Silicon NPN Transistor utilizing two individual chips mounted in a hermetically sealed metal case designed for differential amplifier applications.

**MARKING: FULL PART NUMBER**

**MAXIMUM RATINGS:** ( $T_A=25^\circ\text{C}$ )

Collector-Base Voltage
Collector-Emitter Voltage
Emitter-Base Voltage
Continuous Collector Current
Power Dissipation (One Die)
Power Dissipation (Both Dice)
Power Dissipation (One Die, $T_C=25^\circ\text{C}$ )
Power Dissipation (Both Dice, $T_C=25^\circ\text{C}$ )
Operating and Storage Junction Temperature

**SYMBOL**

$V_{CB0}$	45
$V_{CEO}$	45
$V_{EBO}$	6.0
$I_C$	30
$P_D$	300
$P_D$	500
$P_D$	750
$P_D$	1.5
$T_J, T_{stg}$	-65 to +200

**UNITS**

V
V
V
mA
mW
mW
mW
W
$^\circ\text{C}$

**ELECTRICAL CHARACTERISTICS:** ( $T_A=25^\circ\text{C}$  unless otherwise noted)

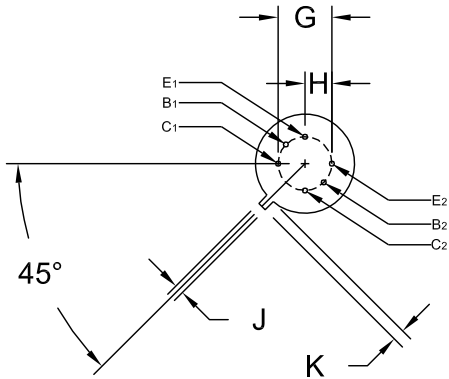
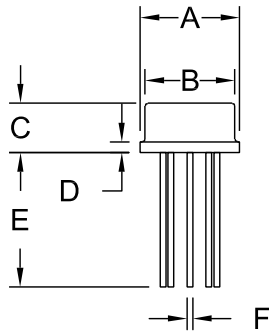
SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
$I_{CBO}$	$V_{CB}=45\text{V}$		10	nA
$I_{CEO}$	$V_{CE}=5.0\text{V}$		2.0	nA
$I_{EBO}$	$V_{EB}=5.0\text{V}$		2.0	nA
$BV_{CB0}$	$I_C=10\mu\text{A}$	45		V
$BV_{CEO}$	$I_C=10\text{mA}$	45		V
$BV_{EBO}$	$I_E=10\mu\text{A}$	6.0		V
$V_{CE(SAT)}$	$I_C=1.0\text{mA}, I_B=0.1\text{mA}$		0.35	V
$V_{BE(ON)}$	$V_{CE}=5.0\text{V}, I_C=100\mu\text{A}$		0.70	V
$h_{FE}$	$V_{CE}=5.0\text{V}, I_C=10\mu\text{A}$	150	600	
$h_{FE}$	$V_{CE}=5.0\text{V}, I_C=10\mu\text{A}, T_A=-55^\circ\text{C}$	30		
$h_{FE}$	$V_{CE}=5.0\text{V}, I_C=100\mu\text{A}$	225		
$h_{FE}$	$V_{CE}=5.0\text{V}, I_C=1.0\text{mA}$	300		
$f_T$	$V_{CE}=5.0\text{V}, I_C=500\mu\text{A}, f=20\text{MHz}$	60		MHz
$C_{ob}$	$V_{CB}=5.0\text{V}, I_E=0, f=140\text{kHz}$		6.0	pF
NF	$V_{CE}=5.0\text{V}, I_C=10\mu\text{A}, R_S=10\text{k}\Omega, f=1.0\text{kHz}, BW=200\text{Hz}$		3.0	dB
$h_{FE1}/h_{FE2}$	$V_{CE}=5.0\text{V}, I_C=100\mu\text{A}$	0.8	1.0	
$ V_{BE1}-V_{BE2} $	$V_{CE}=5.0\text{V}, I_C=10\mu\text{A}$		10	mV
$ V_{BE1}-V_{BE2} $	$V_{CE}=5.0\text{V}, I_C=100\mu\text{A}$		5.0	mV
$ V_{BE1}-V_{BE2} $	$V_{CE}=5.0\text{V}, I_C=1.0\text{mA}$		10	mV
$\Delta(V_{BE1}-V_{BE2})$	$V_{CE}=5.0\text{V}, I_C=100\mu\text{A}, T_A=-55^\circ\text{C}$ to $+25^\circ\text{C}$		1.6	mV
$\Delta(V_{BE1}-V_{BE2})$	$V_{CE}=5.0\text{V}, I_C=100\mu\text{A}, T_A=+25^\circ\text{C}$ to $+125^\circ\text{C}$		2.0	mV

R1 (4-March 2011)

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**TO-78 CASE - MECHANICAL OUTLINE**



R1

SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A (DIA)	0.335	0.370	8.51	9.40
B (DIA)	0.305	0.335	7.75	8.51
C	0.150	0.185	3.81	4.70
D	-	0.040	-	1.02
E	0.500	-	12.70	-
F (DIA)	0.016	0.021	0.41	0.53
G	0.200		5.08	
H	0.100		2.54	
J	0.028	0.034	0.71	0.86
K	0.029	0.045	0.74	1.14

TO-78 (REV: R1)

**MARKING: FULL PART NUMBER**

R1 (4-March 2011)

## OUTSTANDING SUPPORT AND SUPERIOR SERVICES



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### PRODUCT SUPPORT

Central's operations team provides the highest level of support to insure product is delivered on-time.

- Supply management (Customer portals)
- Inventory bonding
- Consolidated shipping options
- Custom bar coding for shipments
- Custom product packing

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### DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free quick ship samples (2<sup>nd</sup> day air)
- Online technical data and parametric search
- SPICE models
- Custom electrical curves
- Environmental regulation compliance
- Customer specific screening
- Up-screening capabilities
- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- Application and design sample kits
- Custom product and package development

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### CONTACT US

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