PN5138

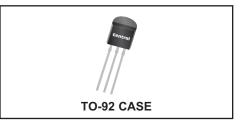
PNP SILICON TRANSISTOR



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DESCRIPTION:

The CENTRAL SEMICONDUCTOR PN5138 is a small signal PNP silicon transistor designed for general purpose amplifier applications.



 V_{CE} =10V, I_{C} =10mA

V_{CB}=5.0V, f=1.0MHz

 V_{EB} =0.5V, f=1.0MHz

 V_{CE} =10V, I_{C} =1.0mA, f=1.0kHz

 V_{CE} =5.0V, I_{C} =0.5mA, f=20MHz

 h_{FE}

 C_{ob}

 C_{ib}

h_{fe}

h_{fe}

MARKING: FULL PART NUMBER

| MAXIMUM RATINGS: (TA=25°C) | SYMBOL | | UNITS |
|--|-----------------------------------|-------------|-------|
| Collector-Base Voltage | V_{CBO} | 30 | V |
| Collector-Emitter Voltage | V_{CEO} | 30 | V |
| Emitter-Base Voltage | V_{EBO} | 5.0 | V |
| Continuous Collector Current | $I_{\mathbb{C}}$ | 500 | mA |
| Power Dissipation | P_{D} | 625 | mW |
| Operating and Storage Junction Temperature | T _J , T _{stg} | -65 to +150 | °C |
| Thermal Resistance | Θ.ΙΔ | 200 | °C/W |

ELECTRICAL CHARACTERISTICS: (T_A=25°C unless otherwise noted) **SYMBOL TEST CONDITIONS** MAX **UNITS** $V_{CB}=20V$ 50 **I**CBO nΑ V_{CB} =20V, T_A =65°C 3.0 μΑ **ICBO** I_C=100μA 30 ٧ **BVCBO BVCEO** I_C=10mA 30 ٧ BV_{EBO} I_E=100μA 5.0 ٧ I_C=10mA, I_B=0.5mA 0.3 ٧ VCE(SAT) I_C =10mA, I_B =0.5mA 1.0 ٧ V_{BE}(SAT) V_{BE(ON)} V_{CE}=10V, I_C=10mA 1.0 ٧ V_{CE} =10V, I_{C} =0.1mA 50 800 h_FE V_{CE} =10V, I_{C} =1.0mA 50 $^{\mathsf{h}_{\mathsf{FE}}}$

50

40

1.5

рF

pF

7.0

30

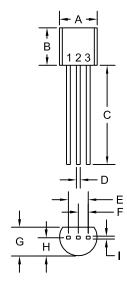
1000

PN5138

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TO-92 CASE - MECHANICAL OUTLINE



| DIMENSIONS | | | | | | |
|------------|--------|-------|-------------|------|--|--|
| | INCHES | | MILLIMETERS | | | |
| SYMBOL | MIN | MAX | MIN | MAX | | |
| A (DIA) | 0.175 | 0.205 | 4.45 | 5.21 | | |
| В | 0.170 | 0.210 | 4.32 | 5.33 | | |
| С | 0.500 | - | 12.70 | - | | |
| D | 0.016 | 0.022 | 0.41 | 0.56 | | |
| Е | 0.100 | | 2.54 | | | |
| F | 0.050 | | 1.27 | | | |
| G | 0.125 | 0.165 | 3.18 | 4.19 | | |
| Н | 0.080 | 0.105 | 2.03 | 2.67 | | |
| | 0.015 | | 0.38 | | | |

TO-92 (REV: R1)

LEAD CODE:

- 1) Emitter 2) Base 3) Collector

MARKING:

R1

FULL PART NUMBER

OUTSTANDING SUPPORT AND SUPERIOR SERVICES



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

DESIGNER SUPPORT/SERVICES

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

- Free guick ship samples (2nd 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

REQUESTING PRODUCT PLATING

- 1. If requesting Tin/Lead plated devices, add the suffix "TIN/LEAD" to the part number when ordering (example: 2N2222A TIN/LEAD).
- 2. If requesting Lead (Pb) Free plated devices, add the suffix "PBFREE" to the part number when ordering (example: 2N2222A PBFREE).

CONTACT US

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