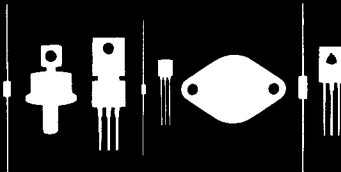


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145 Adams Avenue  
Hauppauge, New York 11788



2N5262

SILICON NPN TRANSISTOR

JEDEC TO-39 CASE

DESCRIPTION

The CENTRAL SEMICONDUCTOR 2N5262 is an NPN silicon core driver transistor manufactured by the epitaxial planar process designed for high current and high speed switching applications.

MAXIMUM RATINGS ( $T_C=25^\circ\text{C}$  unless otherwise noted)

|  | SYMBOL         |             | UNIT                      |
|--|----------------|-------------|---------------------------|
| Collector-Base Voltage                       | $V_{CB0}$      | 75          | V                         |
| Collector-Emitter Voltage                    | $V_{CE0}$      | 50          | V                         |
| Emitter-Base Voltage                         | $V_{EB0}$      | 5.0         | V                         |
| Collector Current                            | $I_C$          | 2.0         | A                         |
| Collector Current (PEAK)                     | $I_{CM}$       | 3.0         | A                         |
| Power Dissipation ( $T_A=25^\circ\text{C}$ ) | $P_D$          | 1.0         | W                         |
| Power Dissipation                            | $P_D$          | 5.0         | W                         |
| Operating and Storage Junction Temperature   | $T_J, T_{STG}$ | -65 TO +200 | $^\circ\text{C}$          |
| Thermal Resistance                           | $\theta_{JA}$  | 1.75        | $^\circ\text{C}/\text{W}$ |
| Thermal Resistance                           | $\theta_{JC}$  | 0.35        | $^\circ\text{C}/\text{W}$ |

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

| SYMBOL               | TEST CONDITIONS   | MIN | MAX | UNIT          |
|----------------------|---|-----|-----|---------------|
| $I_{CES}$            | $V_{CE}=30\text{V}$   |     | 1.0 | $\mu\text{A}$ |
| $I_{CES}$            | $V_{CE}=30\text{V}, T_A=100^\circ\text{C}$                    |     | 100 | $\mu\text{A}$ |
| $I_{CES}$            | $V_{CE}=60\text{V}$   |     | 10  | $\mu\text{A}$ |
| $BV_{CB0}$           | $I_C=0.1\text{mA}$  | 75  |     | V             |
| $BV_{CE0}$           | $I_C=10\text{mA}$   | 50  |     | V             |
| $BV_{EB0}$           | $I_E=0.1\text{mA}$  | 5.0 |     | V             |
| $V_{CE}(\text{SAT})$ | $I_C=1000\text{mA}, I_B=100\text{mA}$                         |     | 0.8 | V             |
| $V_{BE}(\text{SAT})$ | $I_C=1000\text{mA}, I_B=100\text{mA}$                         |     | 1.4 | V             |
| $h_{FE}$             | $V_{CE}=1.0\text{V}, I_C=100\text{mA}$                        | 35  |     |               |
| $h_{FE}$             | $V_{CE}=1.0\text{V}, I_C=500\text{mA}$                        | 40  |     |               |
| $h_{FE}$             | $V_{CE}=1.0\text{V}, I_C=1000\text{mA}$                       | 25  |     |               |
| $f_T$                | $V_{CE}=10\text{V}, I_C=50\text{mA}, f=100\text{MHz}$         | 250 |     | MHz           |
| $C_{ob}$             | $V_{CB}=10\text{V}, I_E=0, f=1.0\text{MHz}$                   |     | 12  | pF            |
| $t_{ON}$             | $I_C=1000\text{mA}, I_{B1}=100\text{mA}$                      |     | 30  | ns            |
| $t_{OFF}$            | $I_C=1000\text{mA}, I_{B1}=100\text{mA}, I_{B2}=100\text{mA}$ |     | 60  | ns            |

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## 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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### 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).

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### CONTACT US

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