

# Central<sup>TM</sup> Semiconductor Corp.

145 Adams Avenue, Hauppauge, NY 11788 USA  
Tel: (631) 435-1110 • Fax: (631) 435-1824

Manufacturers of World Class Discrete Semiconductors

2N6716 2N6717 2N6718 NPN  
2N6728 2N6729 2N6730 PNP

COMPLEMENTARY SILICON  
POWER TRANSISTORS

JEDEC TO-237 (EBC) CASE

## DESCRIPTION

The CENTRAL SEMICONDUCTOR 2N6716, 2N6728 Series types are Complementary Silicon Plastic Power Transistors designed for general purpose power amplifier and switching applications

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

|                                               | SYMBOL         | 2N6716<br>2N6728 | 2N6717<br>2N6729 | 2N6718<br>2N6730 | UNIT               |
|-----------------------------------------------|----------------|------------------|------------------|------------------|--------------------|
| Collector-Base voltage                        | $V_{CB0}$      | 60               | 80               | 100              | V                  |
| Collector-Emitter Voltage                     | $V_{CE0}$      | 60               | 80               | 100              | V                  |
| Emitter-Base Voltage                          | $V_{EB0}$      |                  | 5.0              |                  | V                  |
| Collector Current                             | $I_C$          |                  | 2.0              |                  | A                  |
| Base Current                                  | $I_B$          |                  | 0.5              |                  | A                  |
| Power Dissipation                             | $P_D$          |                  | 1.0              |                  | W                  |
| Power Dissipation ( $T_C=25^\circ\text{C}$ )  | $P_D$          |                  | 2.0              |                  | W                  |
| Operating and Storage<br>Junction Temperature | $T_J, T_{stg}$ | -65 TO +150      |                  |                  | $^\circ\text{C}$   |
| Thermal Resistance                            | $\theta_{JA}$  |                  | 125              |                  | $^\circ\text{C/W}$ |
| Thermal Resistance                            | $\theta_{JC}$  |                  | 62.5             |                  | $^\circ\text{C/W}$ |

## ELECTRICAL CHARACTERISTICS ( $T_A=25^\circ\text{C}$ )

| SYMBOL               | TEST CONDITIONS                                        | MIN | MAX | UNIT          |
|----------------------|--------------------------------------------------------|-----|-----|---------------|
| $I_{CBO}$            | $V_{CB}=\text{Rated } V_{CB0}$                         |     | 0.1 | $\mu\text{A}$ |
| $I_{EBO}$            | $V_{EB}=\text{Rated } V_{EB0}$                         |     | 10  | $\mu\text{A}$ |
| $BV_{CBO}$           | $I_C=0.1\text{mA}$ (2N6716, 2N6728)                    | 60  |     | V             |
| $BV_{CBO}$           | $I_C=0.1\text{mA}$ (2N6717, 2N6729)                    | 80  |     | V             |
| $BV_{CBO}$           | $I_C=0.1\text{mA}$ (2N6718, 2N6730)                    | 100 |     | V             |
| $BV_{CE0}$           | $I_C=1.0\text{mA}$ (2N6716, 2N6728)                    | 60  |     | V             |
| $BV_{CE0}$           | $I_C=1.0\text{mA}$ (2N6717, 2N6729)                    | 80  |     | V             |
| $BV_{CE0}$           | $I_C=1.0\text{mA}$ (2N6718, 2N6730)                    | 100 |     | V             |
| $BV_{EB0}$           | $I_E=0.1\text{mA}$                                     | 5.0 |     | V             |
| $V_{CE}(\text{SAT})$ | $I_C=250\text{mA}, I_B=10\text{mA}$                    |     | 0.5 | V             |
| $V_{BE}(\text{ON})$  | $V_{CE}=1.0\text{V}, I_C=250\text{mA}$                 |     | 1.2 | V             |
| $h_{FE}$             | $V_{CE}=1.0\text{V}, I_C=50\text{mA}$                  | 80  |     |               |
| $h_{FE}$             | $V_{CE}=1.0\text{V}, I_C=250\text{mA}$                 | 50  | 250 |               |
| $f_T$                | $V_{CE}=5.0\text{V}, I_C=200\text{mA}, f=20\text{MHz}$ | 50  | 500 | MHz           |
| $C_{ob}$             | $V_{CB}=10\text{V}, I_E=0, f=1.0\text{MHz}$            |     | 30  | pF            |

This datasheet has been download from:

[www.datasheetcatalog.com](http://www.datasheetcatalog.com)

Datasheets for electronics components.