

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

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Manufacturers of World Class Discrete Semiconductors

1.5CE6.8A THRU 1.5CE400A  
1.5CE6.8CA THRU 1.5CE400CA

1.5W TRANSIENT SUPPRESSOR  
5% TOLERANCE

AXIAL LEAD EPOXY CASE

## DESCRIPTION

The CENTRAL SEMICONDUCTOR 1.5CE series types are epoxy molded axial lead transient suppressors designed to protect voltage sensitive components from high voltage transients. These highly reliable devices can withstand a peak pulse power surge of 1500 watts for 1.0ms.

## MAXIMUM RATINGS (T<sub>L</sub>=25°C unless otherwise noted)

Peak Power Dissipation (1.0ms)

Steady State Power Dissipation (T<sub>L</sub>=75°C, L.L.= $\frac{3}{8}$ " )

Forward Surge Current

Operating and Storage Junction Temperature

## SYMBOL

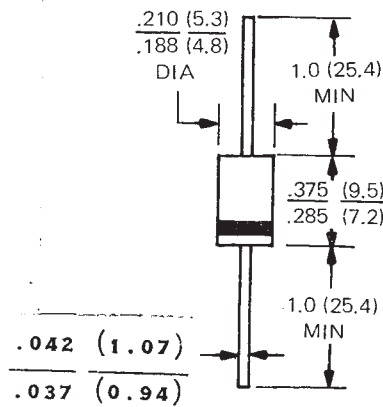
|                                   |             | UNIT |
|-----------------------------------|-------------|------|
| PDM                               | 1500        | W    |
| PD                                | 5.0         | W    |
| IFSM                              | 200         | A    |
| T <sub>J</sub> , T <sub>STG</sub> | -65 TO +175 | °C   |

## ELECTRICAL CHARACTERISTICS (T<sub>A</sub>=25°C)

| TYPE NO.  | VBR @ IT<br>(V) | IT<br>(mA) | VRWM<br>(V) | IR<br>@ VRWM<br>(μA) | IRSM<br>(A) | VRSM<br>@ IRSM<br>(V) | MAX TEMP<br>COEF OF VBR<br>(%/°C) |
|-----------|-----------------|------------|-------------|----------------------|-------------|-----------------------|-----------------------------------|
| 1.5CE6.8A | 6.8             | 10         | 5.80        | 1000                 | 143         | 10.5                  | 0.057                             |
| 1.5CE7.5A | 7.5             | 10         | 6.40        | 500                  | 132         | 11.3                  | 0.061                             |
| 1.5CE8.2A | 8.2             | 10         | 7.02        | 200                  | 124         | 12.1                  | 0.065                             |
| 1.5CE9.1A | 9.1             | 1.0        | 7.78        | 50                   | 112         | 13.4                  | 0.068                             |
| 1.5CE10A  | 10              | 1.0        | 8.55        | 10                   | 103         | 14.5                  | 0.073                             |
| 1.5CE11A  | 11              | 1.0        | 9.40        | 5.0                  | 96          | 15.6                  | 0.075                             |
| 1.5CE12A  | 12              | 1.0        | 10.2        | 5.0                  | 90          | 16.7                  | 0.078                             |
| 1.5CE13A  | 13              | 1.0        | 11.1        | 5.0                  | 82          | 18.2                  | 0.081                             |
| 1.5CE15A  | 15              | 1.0        | 12.8        | 5.0                  | 71          | 21.2                  | 0.084                             |
| 1.5CE16A  | 16              | 1.0        | 13.6        | 5.0                  | 67          | 22.5                  | 0.086                             |
| 1.5CE18A  | 18              | 1.0        | 15.3        | 5.0                  | 59.5        | 25.2                  | 0.088                             |
| 1.5CE20A  | 20              | 1.0        | 17.1        | 5.0                  | 54          | 27.7                  | 0.090                             |
| 1.5CE22A  | 22              | 1.0        | 18.8        | 5.0                  | 49          | 30.6                  | 0.092                             |
| 1.5CE24A  | 24              | 1.0        | 20.5        | 5.0                  | 45          | 33.2                  | 0.094                             |
| 1.5CE27A  | 27              | 1.0        | 23.1        | 5.0                  | 40          | 37.5                  | 0.096                             |
| 1.5CE30A  | 30              | 1.0        | 25.6        | 5.0                  | 36          | 41.4                  | 0.097                             |
| 1.5CE33A  | 33              | 1.0        | 28.2        | 5.0                  | 33          | 45.7                  | 0.098                             |
| 1.5CE36A  | 36              | 1.0        | 30.8        | 5.0                  | 30          | 49.9                  | 0.099                             |
| 1.5CE39A  | 39              | 1.0        | 33.3        | 5.0                  | 28          | 53.9                  | 0.100                             |
| 1.5CE43A  | 43              | 1.0        | 36.8        | 5.0                  | 25.3        | 59.3                  | 0.101                             |
| 1.5CE47A  | 47              | 1.0        | 40.2        | 5.0                  | 23.2        | 64.8                  | 0.101                             |
| 1.5CE51A  | 51              | 1.0        | 43.6        | 5.0                  | 21.4        | 70.1                  | 0.102                             |
| 1.5CE56A  | 56              | 1.0        | 47.8        | 5.0                  | 19.5        | 77                    | 0.103                             |
| 1.5CE62A  | 62              | 1.0        | 53.0        | 5.0                  | 17.7        | 85                    | 0.104                             |
| 1.5CE68A  | 68              | 1.0        | 58.1        | 5.0                  | 16.3        | 92                    | 0.104                             |
| 1.5CE75A  | 75              | 1.0        | 64.1        | 5.0                  | 14.6        | 103                   | 0.105                             |
| 1.5CE82A  | 82              | 1.0        | 70.1        | 5.0                  | 13.3        | 113                   | 0.105                             |
| 1.5CE91A  | 91              | 1.0        | 77.8        | 5.0                  | 12          | 125                   | 0.106                             |
| 1.5CE100A | 100             | 1.0        | 85.5        | 5.0                  | 11          | 137                   | 0.106                             |

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

| TYPE NO.  | VBR @ IT<br>(V) | (mA) | VRWM<br>(V) | IR<br>@ VRWM<br>( $\mu\text{A}$ ) | IRSM<br>(A) | VRSM<br>@ IRSM<br>(V) | MAX TEMP<br>COEF OF VBR<br>(%/°C) |
|-----------|-----------------|------|-------------|-----------------------------------|-------------|-----------------------|-----------------------------------|
| 1.5CE110A | 110             | 1.0  | 94.0        | 5.0                               | 9.9         | 152                   | 0.107                             |
| 1.5CE120A | 120             | 1.0  | 102         | 5.0                               | 9.1         | 165                   | 0.107                             |
| 1.5CE130A | 130             | 1.0  | 111         | 5.0                               | 8.4         | 179                   | 0.107                             |
| 1.5CE150A | 150             | 1.0  | 128         | 5.0                               | 7.2         | 207                   | 0.108                             |
| 1.5CE160A | 160             | 1.0  | 136         | 5.0                               | 6.8         | 219                   | 0.108                             |
| 1.5CE170A | 170             | 1.0  | 145         | 5.0                               | 6.4         | 234                   | 0.108                             |
| 1.5CE180A | 180             | 1.0  | 154         | 5.0                               | 6.1         | 246                   | 0.108                             |
| 1.5CE200A | 200             | 1.0  | 171         | 5.0                               | 5.5         | 274                   | 0.108                             |
| 1.5CE220A | 220             | 1.0  | 185         | 5.0                               | 4.6         | 328                   | 0.108                             |
| 1.5CE250A | 250             | 1.0  | 214         | 5.0                               | 5.0         | 344                   | 0.110                             |
| 1.5CE300A | 300             | 1.0  | 256         | 5.0                               | 5.0         | 414                   | 0.110                             |
| 1.5CE350A | 350             | 1.0  | 300         | 5.0                               | 4.0         | 482                   | 0.110                             |
| 1.5CE400A | 400             | 1.0  | 342         | 5.0                               | 4.0         | 548                   | 0.110                             |



FOR BIPOLAR DEVICE, USE "CA" SUFFIX, EX: 1.5CE6.8CA