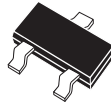


CMPLC1V5  
CMPLC1V5D

**SURFACE MOUNT  
LOW CAPACITANCE ESD TRANSIENT  
DATA LINE PROTECTOR**



**SOT-23 CASE**

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

**DESCRIPTION:**

CENTRAL SEMICONDUCTOR CMPLC1V5 (Single) and CMPLC1V5D (Dual) types are low capacitance ESD Transient data line protectors packaged in the SOT-23 surface mount package. These devices provide protection to sensitive electronic devices from spurious ESD voltage transients and feature the lowest breakdown voltage available today making them ideal for circuits operating as low as 1.2V and 1.5V DC. Typical applications include: high speed data lines, mobile phones, PDA's, microcontrollers, microprocessor I/O interfaces, and LAN/WAN equipment.

**MARKING CODE:**

**CMPLC1V5 (SINGLE): CLV5**

**CMPLC1V5D (DUAL): CV5D**

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

|  | SYMBOL    |             | UNITS              |
|--|-----------|-------------|--------------------|
| Reverse Stand-off Voltage                          | $V_{RWM}$ | 1.5         | V                  |
| Peak Pulse Power (8 x 20 $\mu\text{s}$ Waveform)   | $P_{PK}$  | 50          | W                  |
| Peak Pulse Current (8 x 20 $\mu\text{s}$ Waveform) | $I_{PP}$  | 5.0         | A                  |
| ESD Voltage (HBM)                                  | $V_{ESD}$ | >25         | kV                 |
| Operating Temperature                              | $T_J$     | -50 to +125 | $^{\circ}\text{C}$ |
| Storage Temperature                                | $T_{stg}$ | -50 to +150 | $^{\circ}\text{C}$ |

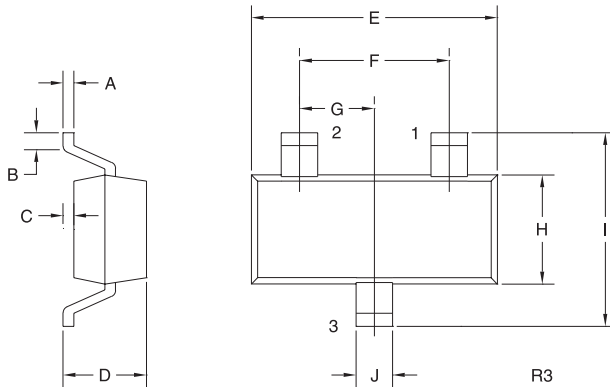
**ELECTRICAL CHARACTERISTICS:** ( $T_A=25^{\circ}\text{C}$  unless otherwise noted)

| SYMBOL | TEST CONDITIONS                                      | MIN  | MAX | UNITS         |
|--------|--|------|-----|---------------|
| $I_R$  | $V_{RWM}=1.5\text{V}$                                |      | 1.0 | $\mu\text{A}$ |
| $BV_R$ | $I_t=100\mu\text{A}$                                 | 1.75 |     | V             |
| $BV_R$ | $I_t=1.0\text{mA}$                                   | 2.1  |     | V             |
| $V_C$  | $I_{PP}=1.0\text{A}$ , $t_p=8 / 20\mu\text{s}$       |      | 4.0 | V             |
| $V_C$  | $I_{PP}=3.0\text{A}$ , $t_p=8 / 20\mu\text{s}$       |      | 7.0 | V             |
| $C_j$  | $V_R=0\text{V}$ , $f=1.0\text{MHz}$ (Pin 1 to Pin 3) |      | 10  | pF            |

R0 (1-April 2005)

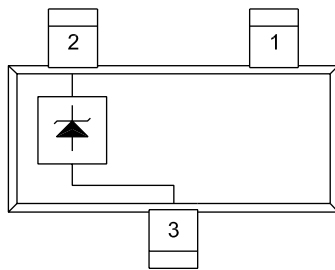
**SURFACE MOUNT  
LOW CAPACITANCE ESD TRANSIENT  
DATA LINE PROTECTOR**

**SOT-23 CASE - MECHANICAL OUTLINE**



| SYMBOL | INCHES |       | MILLIMETERS |      |
|--------|--------|-------|-------------|------|
|        | MIN    | MAX   | MIN         | MAX  |
| A      | 0.003  | 0.007 | 0.08        | 0.18 |
| B      | 0.006  | -     | 0.15        | -    |
| C      | -      | 0.005 | -           | 0.13 |
| D      | 0.035  | 0.043 | 0.89        | 1.09 |
| E      | 0.110  | 0.120 | 2.80        | 3.05 |
| F      | 0.075  |       | 1.90        |      |
| G      | 0.037  |       | 0.95        |      |
| H      | 0.047  | 0.055 | 1.19        | 1.40 |
| I      | 0.083  | 0.098 | 2.10        | 2.49 |
| J      | 0.014  | 0.020 | 0.35        | 0.50 |

SOT-23 (REV: R3)

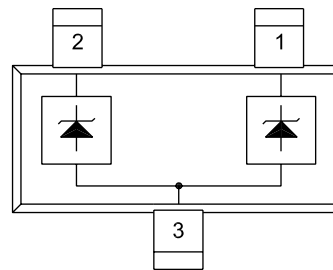


**CMPLC1V5**

**Lead Code:**

- 1) NO CONNECTION
- 2) LINE 2
- 3) GROUND

**MARKING CODE: CLV5**



**CMPLC1V5D**

**Lead Code:**

- 1) LINE 1
- 2) LINE 2
- 3) GROUND

**MARKING CODE: CV5D**