

CMPLC1V5  
CMPLC1V5D

SURFACE MOUNT  
LOW CAPACITANCE SILICON  
ESD TRANSIENT  
DATA LINE PROTECTOR



SOT-23 CASE



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

**DESCRIPTION:**

CENTRAL SEMICONDUCTOR CMPLC1V5 (Single) and CMPLC1V5D (Dual) types are low capacitance silicon 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 CODES:**

CMPLC1V5 (SINGLE): CLV5

CMPLC1V5D (DUAL): CV5D

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

Reverse Stand-off Voltage  
Peak Pulse Power (8 x 20 $\mu\text{s}$  Waveform)  
Peak Pulse Current (8 x 20 $\mu\text{s}$  Waveform)  
ESD Voltage (HBM)  
Operating Temperature  
Storage Temperature

**SYMBOL**

$V_{RWM}$  1.5  
 $P_{PK}$  50  
 $I_{PP}$  5.0  
 $V_{ESD}$  >25  
 $T_J$  -50 to +125  
 $T_{stg}$  -50 to +150

**UNITS**

V  
W  
A  
kV  
 $^\circ\text{C}$   
 $^\circ\text{C}$

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

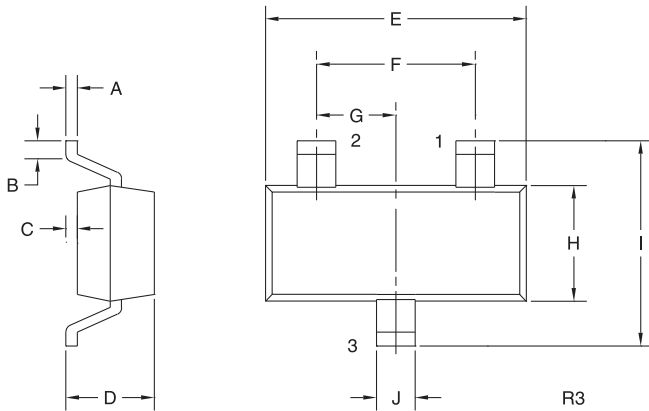
SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
$I_R$	$V_{RWM}=1.5V$		1.0	$\mu\text{A}$
$BV_R$	$I_t=100\mu\text{A}$	1.75		V
$BV_R$	$I_t=1.0\text{mA}$	2.1		V
$V_C$	$I_{PP}=1.0\text{A}$ , $t_p=8/20\mu\text{s}$		4.0	V
$V_C$	$I_{PP}=3.0\text{A}$ , $t_p=8/20\mu\text{s}$		7.0	V
$C_J$	$V_R=0$ , $f=1.0\text{MHz}$		10	pF

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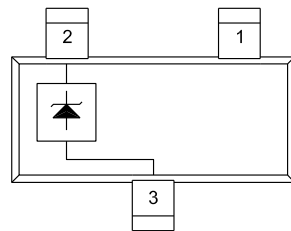
SOT-23 CASE - MECHANICAL OUTLINE



SYMBOL	DIMENSIONS			
	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)

PIN CONFIGURATIONS

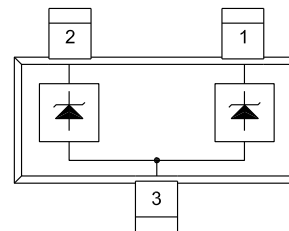


**CMPLC1V5**

**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**

R1 (27-January 2010)