

CSL05
CSL05D

**SURFACE MOUNT
ULTRA LOW CAPACITANCE SILICON
TRANSIENT VOLTAGE SUPPRESSORS**



SOT-23 CASE



www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CSL05 (Single) and CSL05D (Dual) types are ultra low capacitance transient voltage suppressors packaged in the SOT-23 surface mount package. These devices provide excellent protection from spurious voltage transients. The very low capacitance reduces insertion loss to minimize the affect on the data line through-put. Typical applications include: mobile phones, digital cameras, USB ports, MP3 players, and Ethernet port protection.

**MARKING CODES: CSL05 (Single):CL05
CSL05D (Dual): CL5D**

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

Peak Pulse Power, $t_p=8\times 20\mu\text{s}$
Peak Pulse Current, $t_p=8\times 20\mu\text{s}$
ESD Voltage (HBM)
Operating Junction Temperature
Storage Temperature

SYMBOL

P_{PK}	400
I_{PP}	17
V_{ESD}	>25
T_J	-50 to +125
T_{stg}	-50 to +150

UNITS

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

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

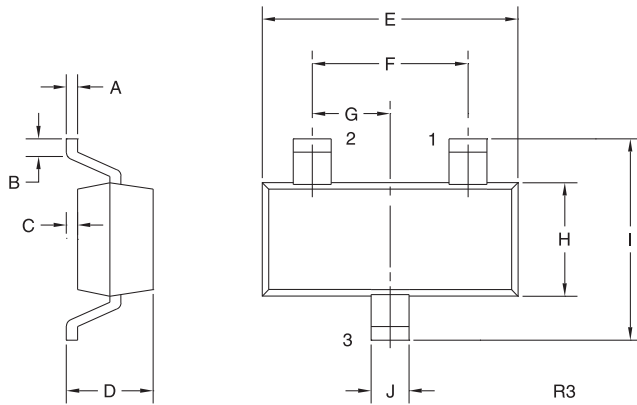
SYMBOL	TEST CONDITIONS	MIN	MAX	UNITS
I_R	$V_{RWM}=5.0\text{V}$		5.0	μA
BV_R	$I_t=1.0\text{mA}$	6.0		V
V_C	$I_{pp}=1.0\text{A}$, $t_p=8\times 20\mu\text{s}$		9.5	V
V_C	$I_{pp}=5.0\text{A}$, $t_p=8\times 20\mu\text{s}$		12	V
C_J	$V_R=0$, $f=1.0\text{MHz}$		1.2	pF

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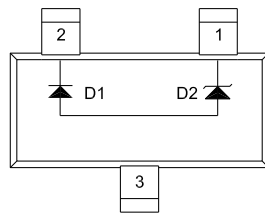
SOT-23 CASE - MECHANICAL OUTLINE



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

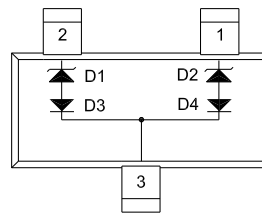


CSL05

LEAD CODE:

- 1) Cathode D2
- 2) Cathode D1
- 3) No Connection

MARKING CODE: CL05



CSL05D

LEAD CODE:

- 1) Cathode D2
- 2) Cathode D1
- 3) Cathode D3, D4

MARKING CODE: CL5D

R1 (17-February 2010)