

CSL05
CSL05D

**SURFACE MOUNT SILICON
ULTRA LOW CAPACITANCE
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°C)

Peak Power Dissipation (8x20µs)
Peak Pulse Current (8x20µs)
Electrical Fast Transient (IEC 61000-4-4) (5x50ns)
ESD Voltage (IEC 61000-4-2, Air)
ESD Voltage (IEC 61000-4-2, Contact)
Operating Junction Temperature
Storage Temperature

SYMBOL

P_{PK} 400
I_{PP} 17
EFT 40
V_{ESD} 25
V_{ESD} 25
T_J -50 to +125
T_{stg} -50 to +150

UNITS

W
A
A
kV
kV
°C
°C

ELECTRICAL CHARACTERISTICS PER TVS: (T_A=25°C unless otherwise noted)

Maximum Reverse Stand-off Voltage V _{RWM}	Minimum Breakdown Voltage V _{BR} @ I _T	Test Current I _T	Maximum Reverse Leakage Current I _R @ V _{RWM}	Maximum Clamping Voltage (8x20µs)		Typical TLP Clamping Voltage (Note 1)		Typical Dynamic Resistance (Note 1) R _{DYN}	Maximum Junction Capacitance @ 0V Bias C _J
				V _C @ I _{PP}	V _{CL} @ I _{PP}	V	A		
5.0	6.0	1.0	5.0	9.5	1.0	10	4.5	0.57	1.2
				12	5.0	15	13.3		

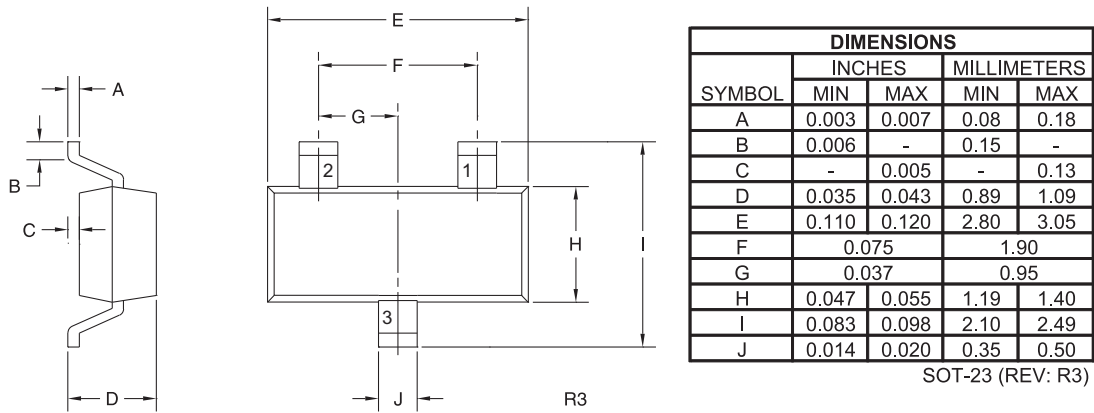
Note 1: Transmission Line Pulse (TLP) conditions: Z₀=50Ω, tp=100ns

CSL05
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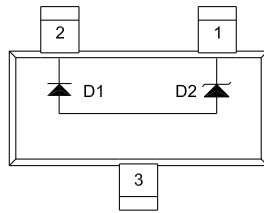


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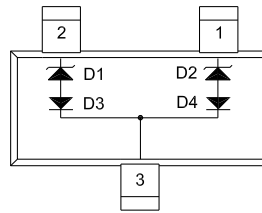
SOT-23 CASE - MECHANICAL OUTLINE



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

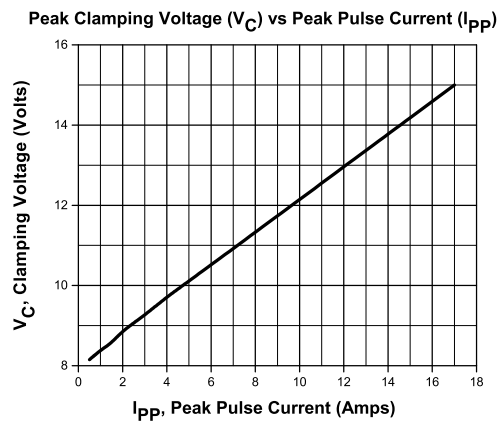
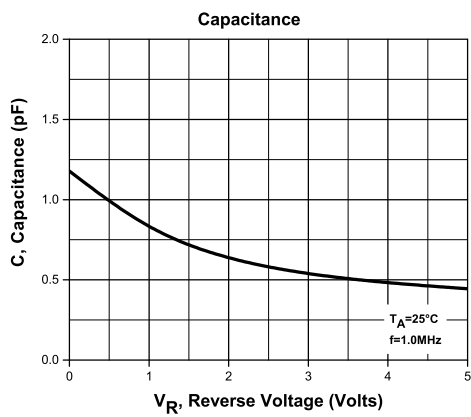
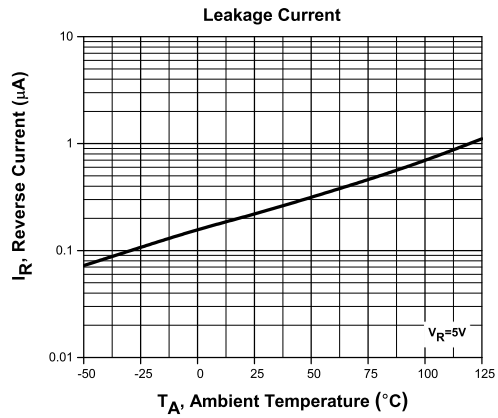
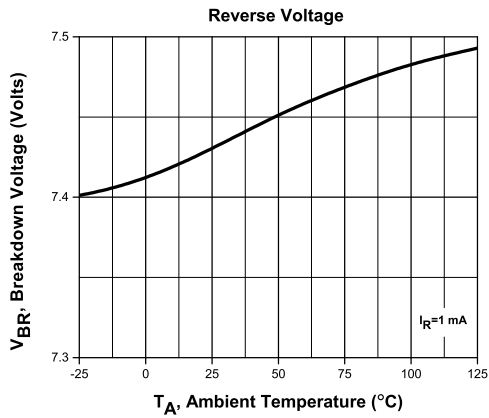
R3 (15-October 2015)

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TYPICAL ELECTRICAL CHARACTERISTICS



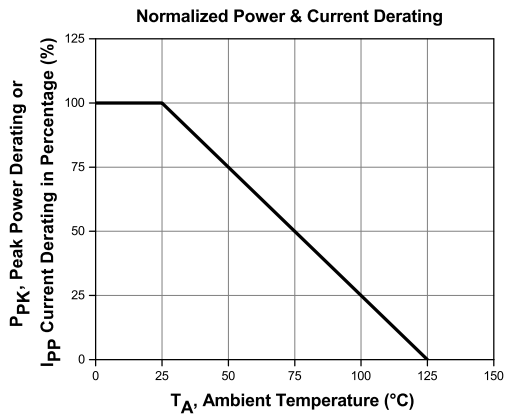
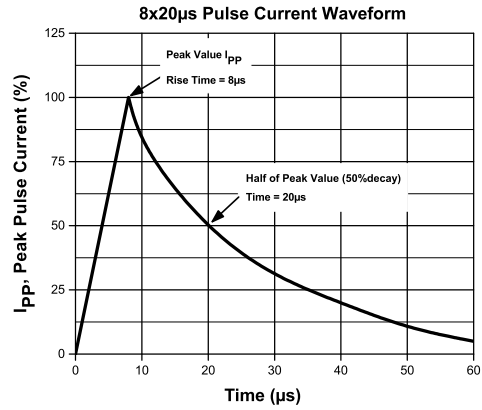
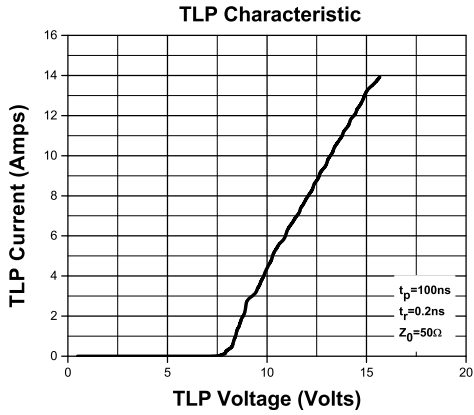
R3 (15-October 2015)

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TYPICAL ELECTRICAL CHARACTERISTICS



R3 (15-October 2015)

OUTSTANDING SUPPORT AND SUPERIOR SERVICES



PRODUCT SUPPORT

Central's operations team provides the highest level of support to insure product is delivered on-time.

- Supply management (Customer portals)
- Inventory bonding
- Consolidated shipping options
- Custom bar coding for shipments
- Custom product packing

DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free quick ship samples (2nd day air)
- Online technical data and parametric search
- SPICE models
- Custom electrical curves
- Environmental regulation compliance
- Customer specific screening
- Up-screening capabilities
- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- Application and design sample kits
- Custom product and package development

CONTACT US

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<http://www.centrasemi.com>

PDN01065

6/02/17

N/A

N/A

Please be advised that Central Semiconductor must immediately discontinue the product(s) listed in the attached PDN notice. We are unable to accept any further orders for these products **unless** we have available inventory on hand.

You may have purchased one or more of the products listed. Please do not hesitate to contact your local Central Semiconductor sales representative with any questions or needs you may have. Central regrets any inconvenience this may cause.

Sincerely,

Central Semiconductor Corp.



<http://www.centrasemi.com>

PDN01065

6/02/17

N/A

N/A

Summary: The CSL05 and CSL05D low capacitance Transient Voltage Suppressors have been discontinued and are now classified as End of Life (EOL).

Although Central Semiconductor Corp. makes every effort to continue to produce devices that have been proclaimed EOL (End of Life) by various manufacturers, it is an accepted industry practice to discontinue certain devices when customer demand falls below a minimum level of sustainability. Accordingly, the following product(s) have been transitioned to End of Life status as part of Central's Product Management Process. Any replacement product will be noted below. The effective date for placing the last purchase order will be six(6) months from the date of this notice and twelve(12) months from the notice date for final shipments; this may be extended if inventory is available.

<u>Central Part Number</u>	<u>Replacement</u>
CSL05 BK	N/A
CSL05 TR	N/A
CSL05D BK	N/A
CSL05D TR	N/A

Central would be happy to assist you by providing additional information or technical data to help locate an alternate source if we have no replacement available. Please email your requests to engineering@centrasemi.com.