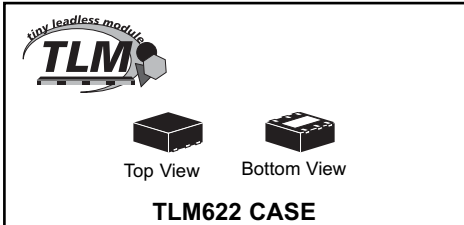


CTLSMS05-M622
 CTLSMS12-M622
 CTLSMS15-M622
 CTLSMS24-M622

**SURFACE MOUNT TLM™
 SILICON QUAD TVS/ZENER ARRAY
 5.0 THRU 24 VOLTS**



Central™ Semiconductor Corp.

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CTLSMS05 Series is a 4 line TVS/Zener Array packaged in a space saving TLM™ (Tiny Leadless Module™) TLM622 case. These devices are designed to protect sensitive equipment against ESD and to prevent latch-up events in CMOS circuitry operating at 5V, 12V, 15V and 24V.

MARKING CODES:

CTLSMS05-M622: CBC
 CTLSMS12-M622: CBD
 CTLSMS15-M622: CBF
 CTLSMS24-M622: CBH

FEATURES:

- Very low clamping voltage
- Low leakage current
- 350W power dissipation
- IEC61000-4-2 ESD 20kV air, 15kV contact compliance
- New Tiny Leadless Module (TLM) package with a footprint compatible with the SOT-363 footprint.

APPLICATIONS:

- PDA's
- Memory Card Ports
- Mobile Phones
- Instrumentation

MAXIMUM RATINGS: (T_A=25°C)

Peak Pulse Power (8x20µsec waveform)
 ESD Voltage (HBM)
 Operating Temperature Range
 Storage Temperature Range

SYMBOL

P_{pp} 350
 V_{ESD} >25
 T_J -50 to +125
 T_{stg} -50 to +150

UNITS

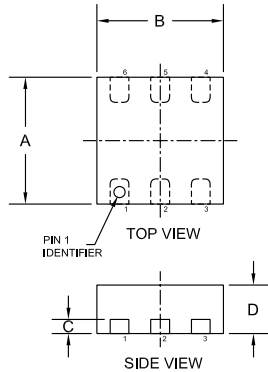
W
 kV
 °C
 °C

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

Type No.	Reverse Stand-Off Voltage	Reverse Breakdown Voltage			Reverse Leakage Current		Clamping Voltage 8x20µsec		Clamping Voltage 8x20µsec		Off State Junction Capacitance V _R =0V f=1.0MHz	Marking Code
		V _{WRM} MAX (V)	V _{BR} MIN (V)	I _{BR} (mA)	I _R MAX (µA)	V _R (V)	V _{cl} MAX (V)	I _{pp} (A)	V _{cl} MAX (V)	I _{pp} (A)		
CTLSMS05-M622	5	6	1.0	5.0	5.0	9.5	5.0	13	24	200	CBC	
CTLSMS12-M622	12	13.3	1.0	5.0	12	17	5.0	21	15	90	CBD	
CTLSMS15-M622	15	16.7	1.0	5.0	15	22	5.0	27	12	70	CBF	
CTLSMS24-M622	24	26.7	1.0	5.0	24	35	5.0	40	8	50	CBH	

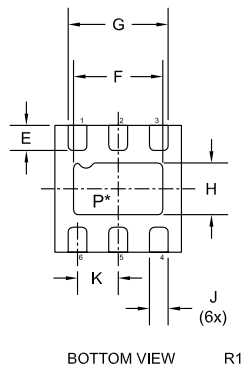
R1 (10-April 2006)

TLM622 CASE - MECHANICAL OUTLINE



SYMBOL	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.077	0.081	1.95	2.05
B	0.077	0.081	1.95	2.05
C	0.007	0.009	0.18	0.23
D	0.029	0.031	0.73	0.78
E	0.012	0.016	0.30	0.40
F	0.053	0.057	1.35	1.45
G	0.061		1.55	
H	0.030	0.033	0.75	0.85
J	0.008	0.012	0.20	0.30
K	0.026		0.65	

TLM622 (REV:R1)



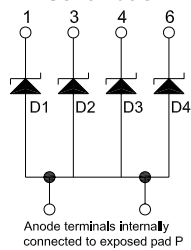
BOTTOM VIEW R1

* See lead code for internal connections to exposed pad P

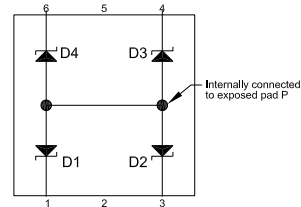
Marking Codes:

CTLSMS05-M622: CBC
 CTLSMS12-M622: CBD
 CTLSMS15-M622: CBF
 CTLSMS24-M622: CBH

Schematic



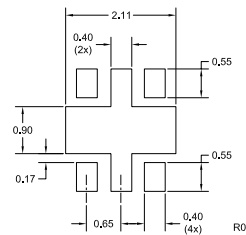
Pinout



Lead Code:

- 1) Cathode D1
- 2) No Connection
- 3) Cathode D2
- 4) Cathode D3
- 5) No Connection
- 6) Cathode D4
- P) Anode D1, D2, D3, D4

Suggested mounting pad layout for maximum power dissipation (Dimensions in mm)



For standard mounting refer to TLM622 Package Details