CM1233

ESD Clamp Array for High Speed Data Line Protection

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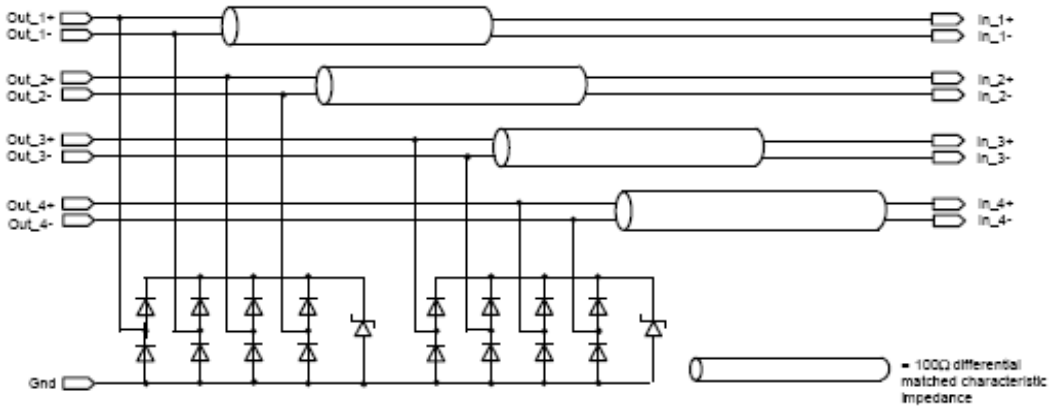
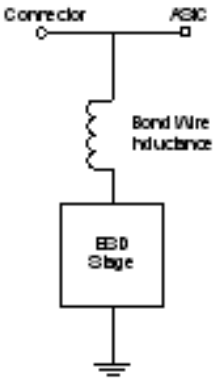
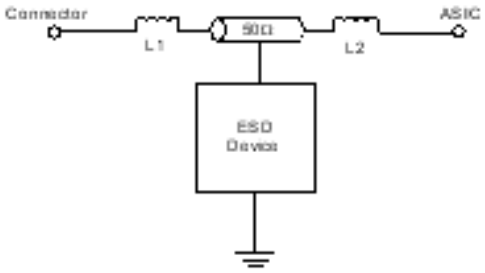
- – – ±
- –
- – –
-
- Ω
-
- – –
-
- –

*Standard test condition is IEC61000−4−2 level 4 test circuit with each pin subjected to ±8 kV contact discharge for 1000 pulses. Discharges are timed at 1 second intervals and all 1000 strikes are completed in one continuous test run. The part is then subjected to standard production test to verify that all of the tested parameters are within spec after the 1000 strikes.

Publication Order Number:


Out_1+
Out_1-
Out_2+
Out_2-
Out_3+
Out_3-
Out_4+
Out_4-
Gnd
In_1+
In_1-
In_2+
In_2-
In_3+
In_3-
In_4+
In_4-
= 100Ω differential matched characteristic impedance


Connector
ASIC
Bond Wire
Inductance
ESD
Stage


Connector
ASIC
L1
50Ω
L2
ESD
Device

Ω

±

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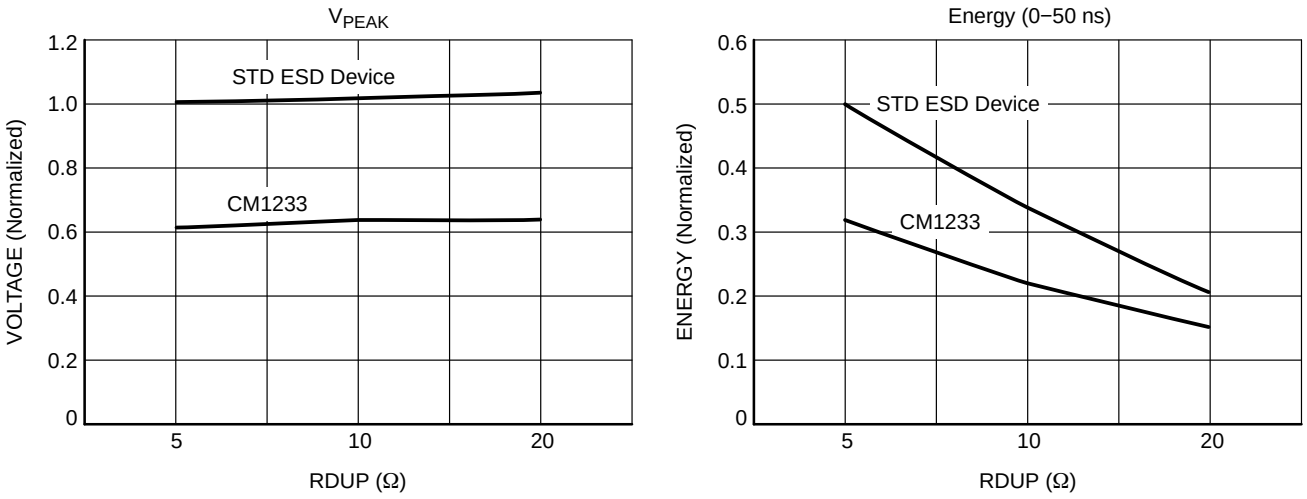
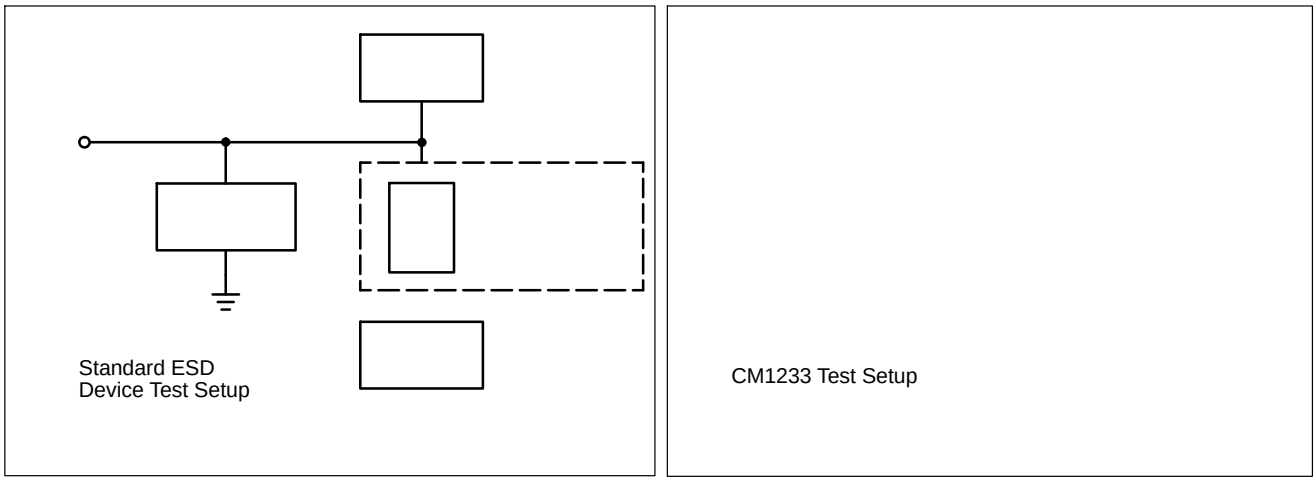
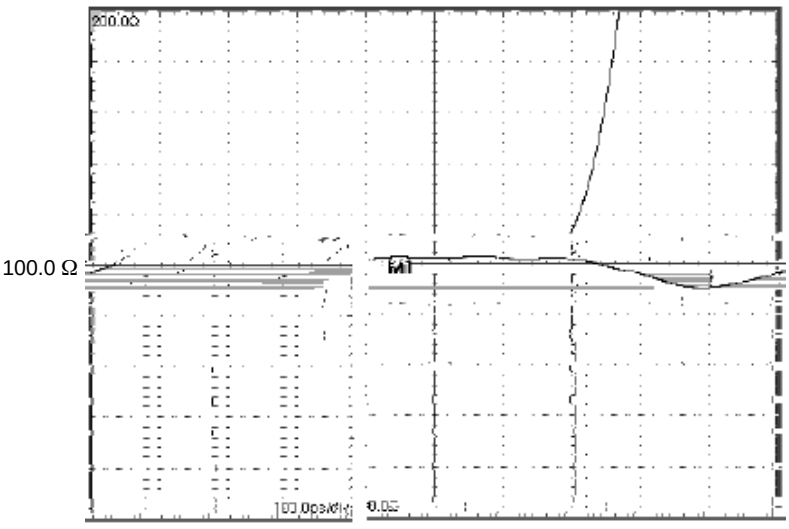
1	In_1+	Bidirectional Clamp to ASIC (inside system)
2	In_1−	Bidirectional Clamp to ASIC (inside system)
3	In_2+	Bidirectional Clamp to ASIC (inside system)
4	In_2−	Bidirectional Clamp to ASIC (inside system)
5	In_3+	Bidirectional Clamp to ASIC (inside system)
6	In_3−	Bidirectional Clamp to ASIC (inside system)
7	In_4+	Bidirectional Clamp to ASIC (inside system)
8	In_4−	Bidirectional Clamp to ASIC (inside system)
9	Out_4−	Bidirectional Clamp to Connector (outside system)
10	Out_4+	Bidirectional Clamp to Connector (outside system)
11	Out_3−	Bidirectional Clamp to Connector (outside system)
12	Out_3+	Bidirectional Clamp to Connector (outside system)
13	Out_2−	Bidirectional Clamp to Connector (outside system)
14	Out_2+	Bidirectional Clamp to Connector (outside system)
15	Out_1−	Bidirectional Clamp to Connector (outside system)
16	Out_1+	Bidirectional Clamp to Connector (outside system)
PAD	GND	Ground return to shield

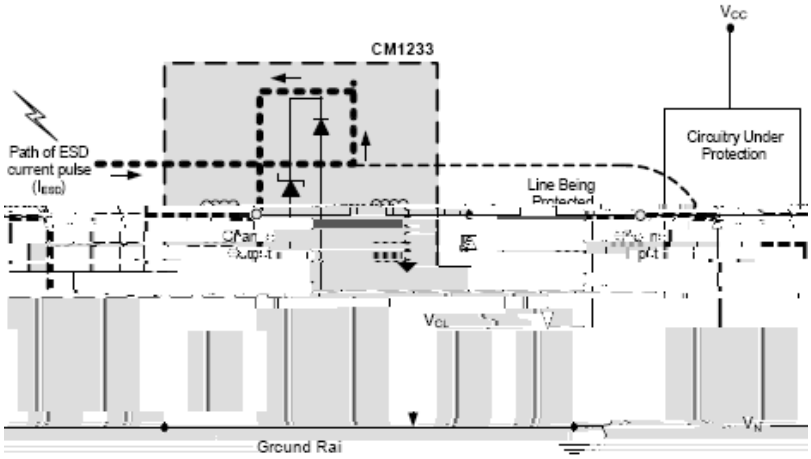
Operating Temperature Range	−40 to +85	°C
Storage Temperature Range	−65 to +150	°C

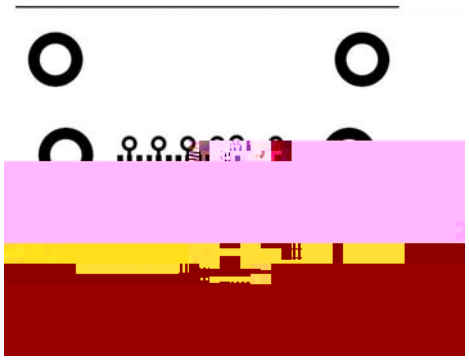


*RDUP is the emulated Dynamic Resistance (load) of the Device Under Protection (DUP). See Figure 7.




100.0 Ω

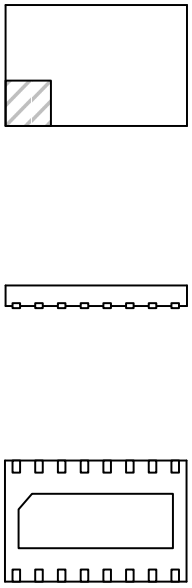

CM1233
Vcc
Path of ESD current pulse (IESD)
Circuitry Under Protection
Line Being Protected
VCL
VN
Ground Rai



WDFN16, 6x4, 0.75P
CASE 511AY
ISSUE O

DATE 21 JUL 2010

SCALE 2:1



NOTES:
1. DIMENSIONING AND TOLERANCING PER ASME Y14.5M, 1994.
2. CONTROLLING DIMENSION: MILLIMETERS.
3. DIMENSION b APPLIES TO PLATED TERMINAL AND IS MEASURED BETWEEN 0.15 AND 0.30 MM FROM TERMINAL TIP.
4. COPLANARITY APPLIES TO THE EXPOSED PAD AS WELL AS THE TERMINALS.

	MILLIMETERS	
DIM	MIN	MAX
A	0.70	0.80