ESD Protection Diode Array

Chip Scale Package, 8-Channel

Description

The CM1205 surge protection array provides a very high level of protection for sensitive electronic components that may be subjected to ESD.

The CM1205 will safely dissipate ESD strikes at levels well beyond the maximum requirements set forth in the IEC 61000–4–2 international standard (Level 4, ± 8 kV contact discharge). All I/Os are rated at ± 25 kV using the IEC 61000–4–2 contact discharge method. Using the MIL–STD–883D (Method 3015) specification for Human Body Model (HBM) ESD, all pins are protected for contact discharges to greater than ± 30 kV.

The Chip Scale Package format of this device enables extremely small footprints that are necessary in portable electronics such as cellular phones, PDAs, internet appliances and PCs. The large solder bumps allow for standard attachment to laminate boards without the use of underfill.

The CM 1205 features

PACKAGE / PINOUT DIAGRAMS

BOTTOM VIEW (Bumps Up View)

B1 B2 B3 B4 B5 A1 A2 A3 A4 A5

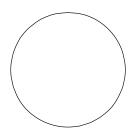
CM1205-08 10-bump CSP Package

APPLICATION INFORMATION

Refer to Application Note "The Chip Scale Package", for a detailed description of Chip Scale Packages offered by ON Semiconductor.

Table 4. PRINTED CIRCUIT BOARD RECOMMENDATIONS

Parameter	Value
Pad Size on PCB	0.275 mm
Pad Shape	Round
Pad Definition	Non-Solder Mask defined pads
Solder Mask Opening	0.350 mm Round
Solder Stencil Thickness	0.125 – 0.150 mm
Solder Stencil Aperture Opening (laser cut, 5% tapered walls)	0.330 mm Round
Solder Flux Ratio	50/50 by volume
Solder Paste Type	No Clean
Pad Protective Finish	OSP (Entek Cu Plus 106A)
Tolerance – Edge To Corner Ball	±50 μm
Solder Ball Side Coplanarity	±20 μm
Maximum Dwell Time Above Liquidous	60 seconds
Maximum Soldering Temperature	260°C

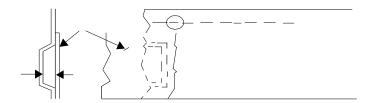


MECHANICAL SPECIFICATIONS

The CM1205-08CP is offered in a 10-bump custom Chip Scale Package (CSP). Dimensions are presented below.

Table 5. CSP TAPE AND REEL SPECIFICATIONS

Part Number	Chip Size (mm)	Pocket Size (mm) B ₀ X A ₀ X K ₀	Tape Width W	Reel Diameter	Qty per Reel	P ₀	P ₁
CM1205-08CP	3.104 X 1.154 X 0.682	3.28 X 1.32 X 0.81	8 mm	178 mm (7")	3500	4 mm	4 mm



WLCSP10, 3.10x1.15 CASE 567BM ISSUE O

DATE 26 JUL 2010

