

7-Channel Low-Capacitance ESD Protection Diode Arrays

Features:

- Small package saves board space
- Protects 7 I/O lines
- ESD protection to over **8kV contact discharge** per IEC-61000
- Low capacitance: **3pF**
- Low clamping voltage
- Can handle multiple ESD strikes
- Full RoHS compliance

Applications:

- USB 2.0 Power & Data Line Protection
- DVI & HDMI Port Protection
- Serial ATA Port Protection
- Mobile Handsets
- Digital Cameras and camcorders
- PDA & MP3 Players
- Digital TV and Set-top Boxes
- Other Portable Electronic Components

Product Description

The OC1208 provides a high level of protection for sensitive parts that may be subjected to over-voltage caused by electrostatic discharge (ESD). Key attribute is the low-capacitance of 3pF which is ideally suited for high speed data ports. This product consists of 7 channels of ESD protection. Each channel consists of a pair of diodes in series which steer the positive and negative ESD current pulse to either the positive (V_P) or negative (V_N) supply rail.

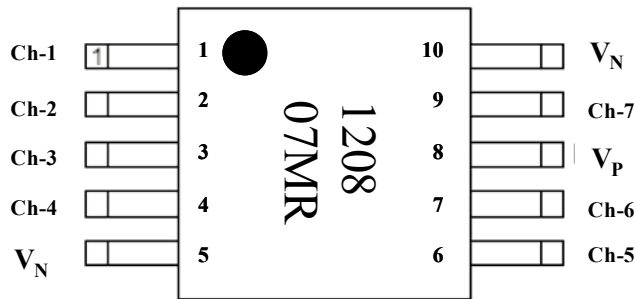
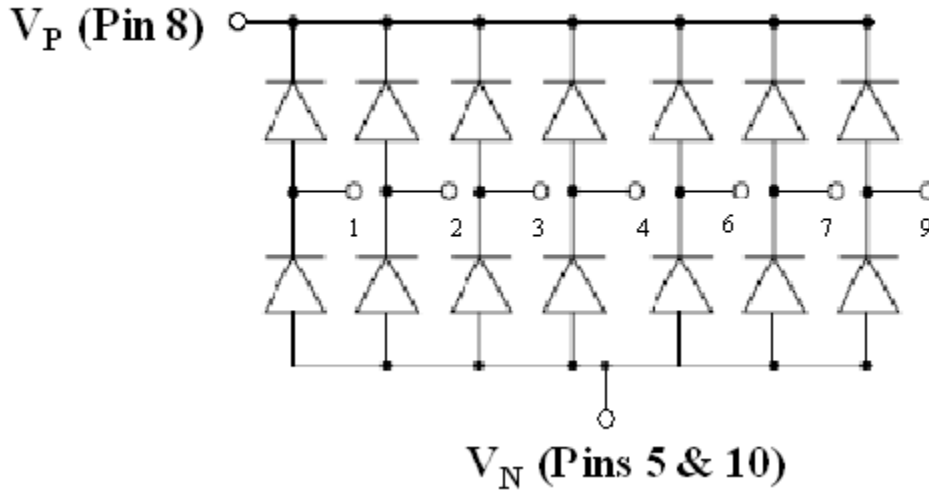
ELECTRICAL OPERATING CHARACTERISTICS				
Electrical Specifications	MIN	TYP	MAX	UNITS
Operating Supply Voltage (V_P)	-	-	6	V
Operating Supply Current (I_P); $V_P=3.3V$	-	-	10	uA
Diode Forward DC Current (1 diode conducting)	-	-	20	mA
Diode Forward Voltage ($I_F=20mA$, @ 25°C)				
Top Diode	0.6	0.7	0.95	V
Bottom Diode	0.65	0.8	0.95	V
Leakage current at $V_P=5V$, 25°C	-	±0.1	±1	uA
ESD Protection				
Contact discharge per IEC 61000-4-2 standard	± 8	-	-	kV
Human Body Model, MIL-STD-883, Method 3015	± 15	-	-	kV
Clamping voltage during ESD discharge MIL-STD-883D (Method 3015), 4kV	-	-	-	
Positive Transient	-	-	5	V
Negative Transient	-	-	5	V
Input Capacitance(OSC @ 30mV; $V_P = 5V$; $V_N = 0V$; $V_{Channel} = 2.5V$; frequency = 1MHz)	-	3	5	pF
Temperature Range:				
Operating	-40	-	85	°C
Storage	-65	-	150	°C
Package Power rating	-	-	300	mW

OBJECTIVE DATA SHEET

OnChip

OC1208

Schematic and Pin Configuration



Ordering Part Number			
PART NUMBER	NUMBER OF ESD CHANNELS	PACKAGE	DEVICE MARKING CODE
OC1208-07MR	7-Channels	MSOP-10	OC 1208 07MR