2 4-C
L C
E D P A

CM1224

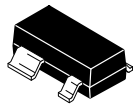
The CM1224 family of diode arrays has been designed to provide ESD protection for electronic components or subsystems requiring minimal capacitive loading. These devices are ideal for protecting systems with high data and clock rates or for circuits requiring low capacitive loading. Each ESD channel consists of a pair of diodes in series which steer the positive or negative ESD current pulse to either the positive (V_P) or negative (V_N) supply rail. A Zener diode is embedded between V_P and V_N, offering two advantages. First, it protects the V_{CC} rail against ESD strikes, and second, it eliminates the need for a bypass capacitor that would otherwise be needed for absorbing positive ESD strikes to ground. The CM1224 will protect against ESD pulses up to 8 kV per the IEC 61000ǐ4ǐ2 standard.

These devices are particularly wellǐsuited for protecting systems using highǐspeed ports such as USB 2.0, IEEE1394 (Firewire , iLink™), Serial ATA, DVI, HDMI and corresponding ports in removable storage, digital camcorders, DVDǐRW drives and other applications where extremely low loading capacitance with ESD protection are required.

The CM1224 family of devices has leadǐfree finishing in a small package footprint.

- Two or Four Channels of ESD Protection
- Provides ESD Protection to IEC61000ǐ4ǐ2 Level 4
  8 kV Contact Discharge
- Low Channel Input Capacitance of 0.7 pF Typical
- Minimal Capacitance Change with Temperature and Voltage

SOT−143

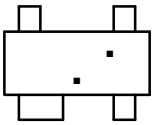


CALE 4:1

	MILLIME E	
DIM	MIN	MA
A	0.80	1.12
	0.30	0.51
1	0.76	0.94
	0.08	0.20
D	2.80	3.05
E1	1.20	1.40
℄	1.92 BSC	
L	0.35	0.70

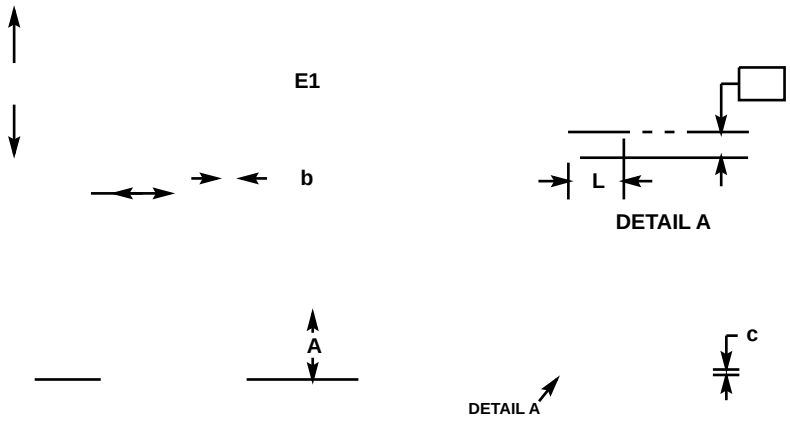
1 1 2 D 1 1 2 D 1 1 2 D 1 1 2 D2 1 1 2 D2 1 1 2 D2 1 1

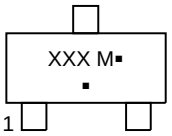
GENERIC
MARKING DIAGRAM*



SOT−23, 6 Lead
CASE 527AJ

SCALE 2:1





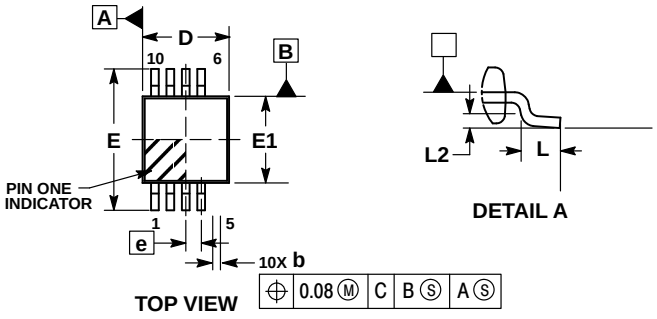
XXX = Specific Device Code
M = Date Code
▪ = Pb−Free Package

*This information is generic. Please refer to device data sheet for actual part marking. Pb−Free indicator, “G” or microdot “

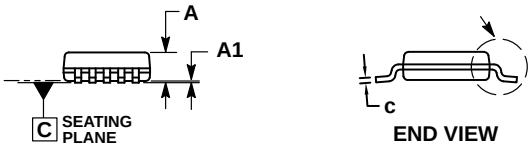
SCALE 1:1

MSOP10, 3x3
CASE 846AE
ISSUE A

DATE 20 JUN 2017



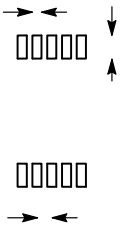
TOP VIEW



SIDE VIEW

END VIEW

RECOMMENDED SOLDERING FOOTPRINT*

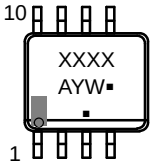


*For additional information on our Pb−Free strategy and soldering details, please download the **onsemi** Soldering and Mounting Techniques Reference Manual, SOLDERRM/D.

NOTES:
1. DIMENSIONS AND TOLERANCING PER ASME Y14.5M, 1994.
2. CONTROLLING DIMENSIONS: MILLIMETERS.
3. DIMENSION b DOES NOT INCLUDE DAMBAR PROTRUSION. ALLOWABLE DAMBAR PROTRUSION SHALL BE 0.10 MM IN EXCESS OF MAXIMUM MATERIAL CONDITION.
4. DIMENSION D DOES NOT INCLUDE MOLD FLASH, PROTRUSIONS, OR GATE BURRS. MOLD FLASH, PROTRUSIONS, OR GATE BURRS SHALL NOT EXCEED 0.15 MM PER SIDE. DIMENSION E DOES NOT INCLUDE INTER-LEAD FLASH OR PROTRUSION. INTERLEAD FLASH OR PROTRUSION SHALL NOT EXCEED 0.25 MM PER SIDE. DIMENSIONS D AND E ARE DETERMINED AT DATUM F.
5. DATUMS A AND B TO BE DETERMINED AT DATUM F.
6. A1 IS DEFINED AS THE VERTICAL DISTANCE FROM THE SEATING PLANE TO THE LOWEST POINT ON THE PACKAGE BODY.

	MILLIMETERS	
DIM	MIN	NOM
A	−−−	−−−
A1	0.00	0.05
b	0.17	−−−
c	0.13	−−−
D	2.90	3.00
E	4.75	4.90
E1	2.90	3.00
e	0.50 BSC	
L	0.40	0.70
L1	0.95 REF	
L2	0.25 BSC	

GENERIC MARKING DIAGRAM*



XXXX = Specific Device Code
A = Assembly Location
Y = Year
W = Work Week
▪ = Pb−Free Package

(Note: Microdot may be in either location)

*This information is generic. Please refer to device data sheet for actual part marking. Pb−Free indicator, “G” or microdot “ ▪”, may or may not be present and may be in either location. Some products may not follow the Generic Marking.