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EMI Filter with ESD Protection for SIM Card Applications

Product Description

The CM6320 is a 24-bump EMI filter with ESD protection device for data line application in a 0.4 mm pitch, 5×5 CSP form factor. It is fully compliant with IEC 61000-4-2. The CM6320 is RoHS II compliant.

Features

- 24-Bump, 1.96 mm X 1.96 mm Footprint Chip Scale Package
- These Devices are Pb-Free and are RoHS Compliant



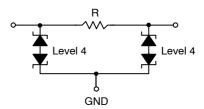
ON Semiconductor®

http://onsemi.com



WLCSP24 CASE 567CK

ELECTRICAL SCHEMATIC



1 of 10 Filter Channels

MARKING DIAGRAM

+ 6320 YYWW XXXX

6320 = CM6320 YYWW = Date Code

XXXX = Last four digits of lot #

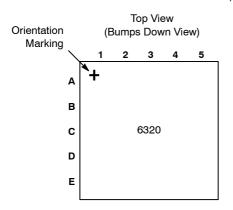
ORDERING INFORMATION

Device	Device Package Shipping [†]	
CM6320	CSP-24 (Pb-Free)	5000/Tape & Reel

†For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specification Brochure, BRD8011/D.

Downloaded from Arrow.com.

PACKAGE / PINOUT DIAGRAMS



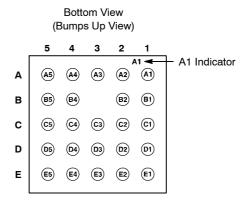


Table 1. PIN DESCRIPTIONS

A5 = Line 1	A4 = Line 2	A3 = GND	A2 = Line 1	A1 = Line 2
B5 = Line 3	B4 = Line 4		B2 = Line 3	B1 = Line 4
C5 = Line 5	C4 = Line 6	C3 = GND	C2 = Line 5	C1 = Line 6
D5 = Line 7	D4 = Line 8	D3 = GND	D2 = Line 7	D1 = Line 8
E5 = Line 9	E4 = Line 10	E3 = GND	E2 = Line 9	E1 = Line 10

ELECTRICAL SPECIFICATIONS AND CONDITIONS

Table 2. PARAMETERS AND OPERATING CONDITIONS

Parameter	Rating	Units
Storage Temperature Range	-55 to +150	°C
Operating Temperature Range	-40 to +85	°C
Power Dissipation at 70°C per Channel	60	mW

Table 3. ELECTRICAL OPERATING CHARACTERISTICS (Note 1)

Symbol	Parameter	Conditions	Min	Тур	Max	Units
R	Resistance		56	70	84	Ω
С	Capacitance per Line	At 1 MHz, V _{IN} = 0 V; (Note 2)			30	pF
V_{BR}	Breakdown Voltage	I _R = ±1 mA	±6	±7.8	±10	V
I _{LEAK}	Leakage Current per Channel	V _{IN} = 3.0 V		10	100	nA
V _{ESD}	ESD Protection Peak Discharge Voltage a) Contact Discharge per IEC 61000-4-2 standard b) Air Discharge per IEC 61000-4-2 standard	(Notes 2 and 3)	±15			kV

- 1. All parameters specified at T_A = 25°C unless otherwise noted. 2. These parameters guaranteed by design and characterization. 3. Standard IEC 61000–4–2 with $C_{Discharge}$ = 150 pF, $R_{Discharge}$ = 330 Ω .

RF CHARACTERISTICS

T_A = 25°C, DC Bias = 0 V, 50 Ω Environment

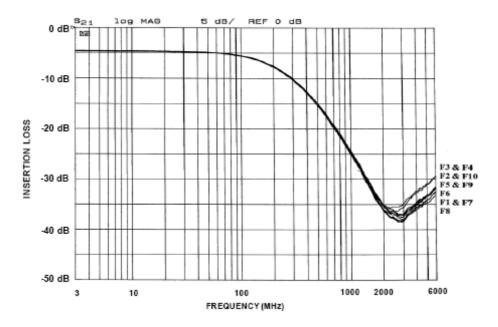
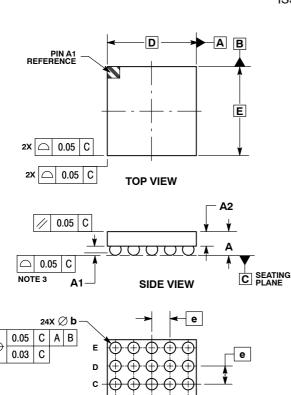


Figure 1. Insertion Loss (0 V Bias)

PACKAGE DIMENSIONS

WLCSP24, 1.96x1.96 CASE 567CK-01 ISSUE O



В

2 3 4

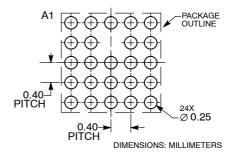
BOTTOM VIEW

NOTES:

- 1. DIMENSIONING AND TOLERANCING PER ASME Y14.5M, 1994.
- 2. CONTROLLING DIMENSION: MILLIMETERS.
 3. COPLANARITY APPLIES TO SPHERICAL CROWNS OF SOLDER BALLS.

	MILLIMETERS			
DIM	MIN	MAX		
Α	0.57	0.63		
A1	0.17	0.17 0.24		
A2	0.40 REF			
b	0.24	0.29		
D	1.96 BSC			
E	1.96 BSC			
е	0.40 BSC			

RECOMMENDED **SOLDERING FOOTPRINT***



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

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