

ESD/EMI Protection For Color Lcd Interfaces

EM2374K

IEC COMPATIBILITY

- ◆ IEC61000-4-2 (ESD) $\pm 15\text{kV}$ (air), $\pm 8\text{kV}$ (contact)
- ◆ IEC61000-4-4 (EFT): 40A - 5/50ns

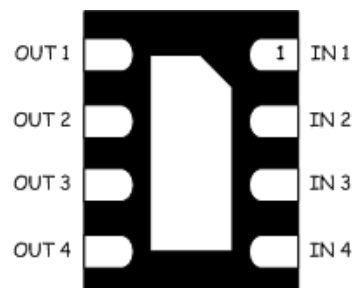
Feature

- ◆ TVS working voltage: 5V
- ◆ Resistor: $100\Omega \pm 20\%$
- ◆ Typical Capacitance: 20pF (VR = 0V)
- ◆ Protection and filtering for four lines
- ◆ Solid-state technology
- ◆ RoHS Compliant
- ◆ Bidirectional EMI/RFI filter with integrated TVS for ESD protection
- ◆ Filter performance: 30dB minimum attenuation 1.8GHz to 2.5GHz

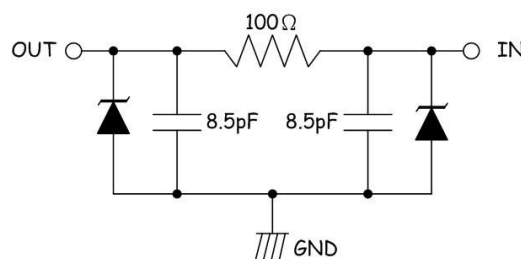
Applications

- ◆ Cell Phone CCD Camera Lines
- ◆ Color LCD Protection
- ◆ Clamshell Cell Phones

DFN-1714



Functional Diagram



Mechanical Data

- ◆ Nominal Dimensions: 1.7 x 1.35 x 0.50 mm
- ◆ Molding Compound Flammability Rating : UL 94V-O
- ◆ Quantity Per Reel : 3,000pcs
- ◆ Reel Size : 7 inch
- ◆ Lead Finish : Lead Free

Mechanical Characteristics

Symbol	Parameter	Value	Units
T_J	Junction Temperature	125	$^{\circ}\text{C}$
T_{OP}	Operating Junction Temperature Range	-40 to +85	$^{\circ}\text{C}$
T_{STG}	Storage Temperature Range	-55 to +150	$^{\circ}\text{C}$
T_L	Soldering Temperature, T max = 10s	260	$^{\circ}\text{C}$

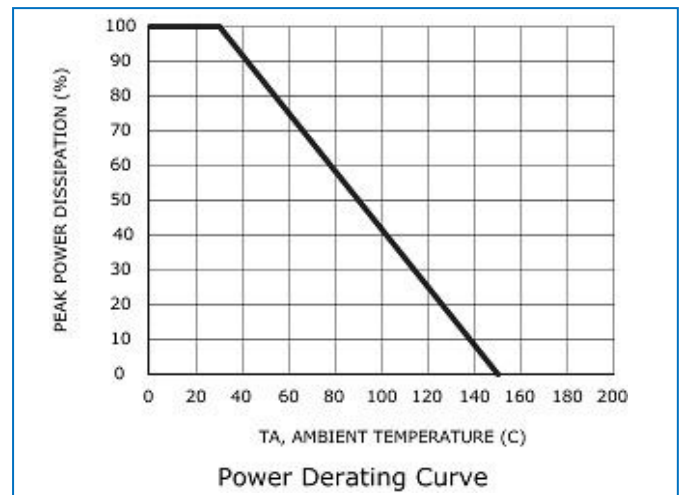
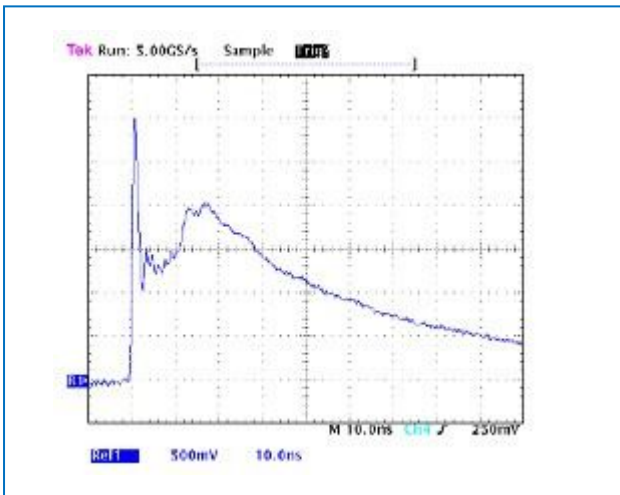
ESD/EMI Protection For Color Lcd Interfaces

EM2374K

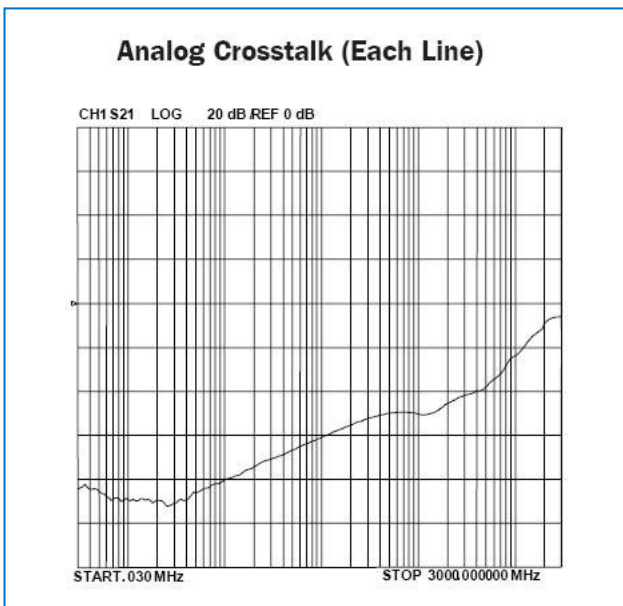
Electrical Characteristics (@ 25°C Unless Otherwise Specified)

Part Number	Device Marking Code	V _{RMW} (V) (max.)	V _{BR} (V) (max.)	R (Ω) (Typ.)	F3dB (MHz) (Typ.)	F6dB (MHz) (Typ.)	I _R (uA) (max.)	C _T @0V (pF) (Typ.)	C _T @2.5V (pF) (Typ.)
EM2374K	K34	5.0	6.0	100	250	295	0.5	12.8	8.5

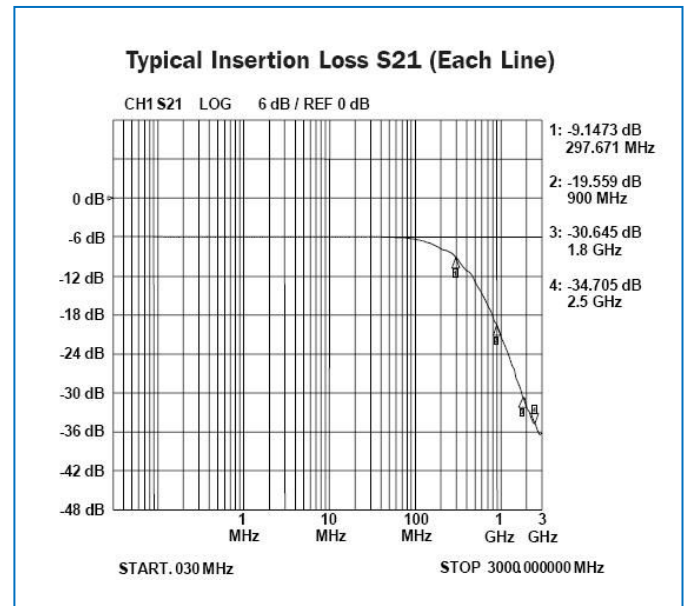
Characteristic Curves



Analog Crosstalk (Each Line)



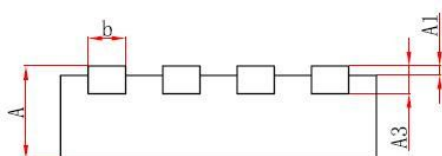
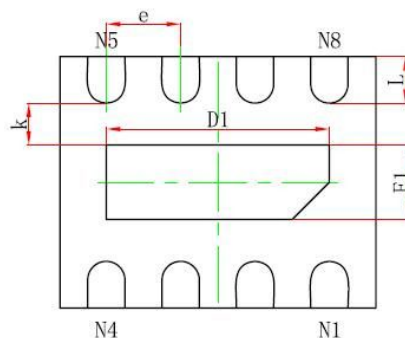
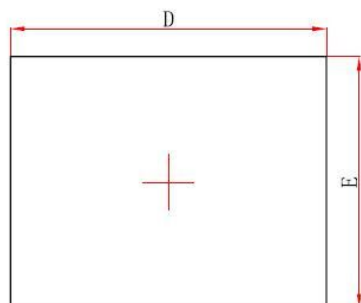
Typical Insertion Loss S21 (Each Line)



ESD/EMI Protection For Color Lcd Interfaces

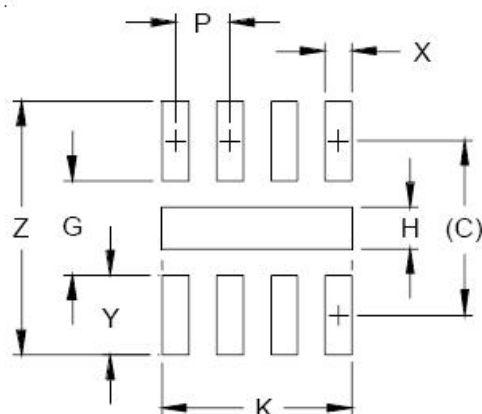
EM2374K

DFN-1714 Package Outline & Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.450/0.550	0.550/0.650	0.018/0.022	0.022/0.026
A1	0.000	0.050	0.000	0.002
A3	0.150REF.		0.006REF.	
D	1.600	1.800	0.063	0.071
E	1.250	1.450	0.049	0.057
D1	1.100	1.300	0.043	0.051
E1	0.300	0.500	0.012	0.020
k	0.200MIN		0.008MIN	
b	0.150	0.250	0.006	0.010
e	0.400TYP.		0.016TYP.	
L	0.150	0.350	0.006	0.014

* SOLDERING FOOTPRINT



DIMENSIONS		
DIM	INCHES	MILLIMETERS
C	(.050)	(1.27)
G	.027	0.69
H	.012	0.30
K	.055	1.40
P	.016	0.40
X	.008	0.20
Y	.023	0.58
Z	.073	1.85