

**EMIF6-100FC****EMI FILTER/TVS ARRAY****APPLICATIONS**

- ✓ Cellular Phones
- ✓ Notebooks
- ✓ Personal Digital Assistant (PDA)
- ✓ Ground Positioning System (GPS)
- ✓ SMART Cards

IEC COMPATIBILITY (EN61000-4)

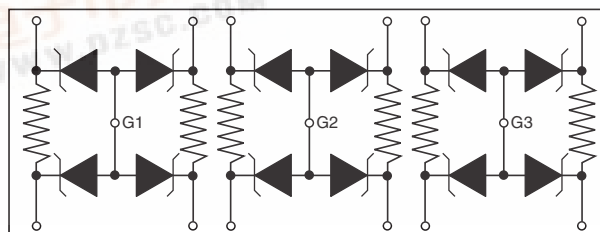
- ✓ 61000-4-2 (ESD): Air - 15kV, Contact - 8kV
- ✓ 61000-4-4 (EFT): 40A - 5/50ns

FEATURES

- ✓ ESD Protection > 25 kilovolts
- ✓ Bidirectional EMI Filtering/TVS Low Pass Filters
- ✓ Low Insertion Loss: -3db Roll-Off @ 60MHz
- ✓ Protects Up to Six(6) Data Lines

MECHANICAL CHARACTERISTICS

- ✓ Flip Chip Package
- ✓ Weight 0.73 milligrams (Approximate)
- ✓ Flammability rating UL 94V-0
- ✓ 8mm Tape and Reel Per EIA Standard 481

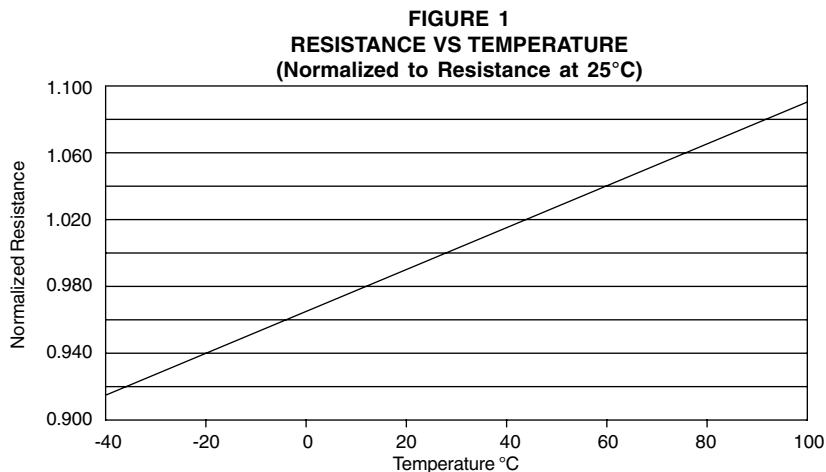
PIN CONFIGURATION

DEVICE CHARACTERISTICS

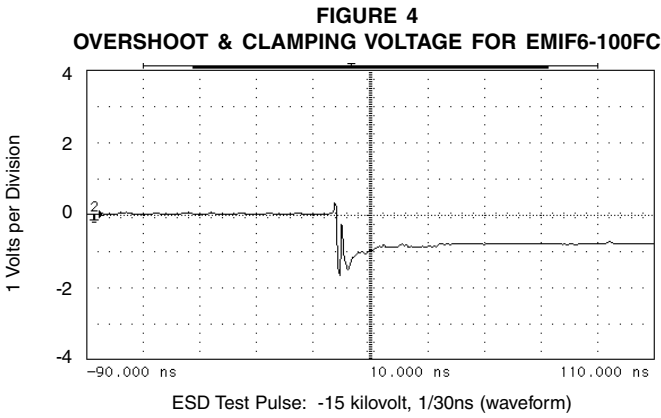
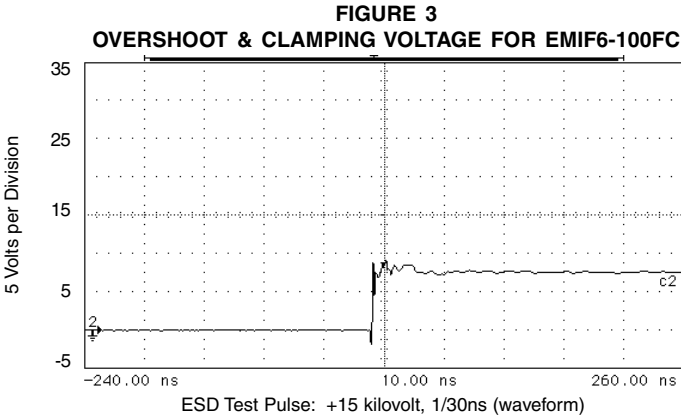
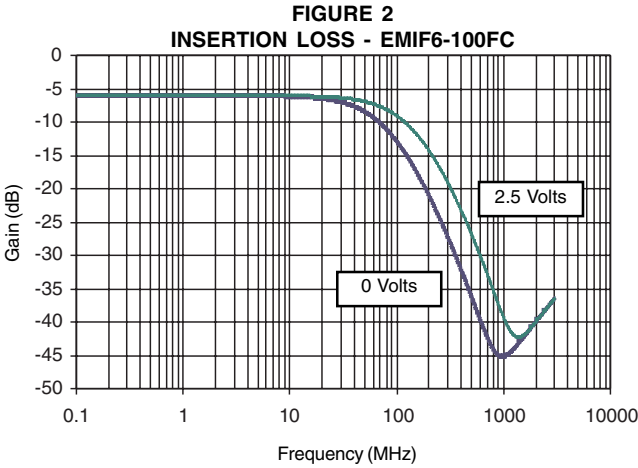
MAXIMUM RATINGS @ 25°C Unless Otherwise Specified			
PARAMETER	SYMBOL	VALUE	UNITS
Operating Temperature	T_J	-40°C to 85°C	°C
Storage Temperature	T_{STG}	-55°C to 150°C	°C
DC Power Per Resistor	P	100	mW
Typical Resistance @ $\pm 20\%$	R	100	OHMS

ELECTRICAL CHARACTERISTICS PER LINE @ 25°C Unless Otherwise Specified							
PART NUMBER	RATED STAND-OFF VOLTAGE	MINIMUM BREAKDOWN VOLTAGE	MAXIMUM REVERSE LEAKAGE CURRENT	TYPICAL FORWARD VOLTAGE	MINIMUM ATTENUATION	CUT-OFF FREQUENCY (50 Ohms I/O ZERO BIAS)	TYPICAL CAPACITANCE PER LINE (See Note 1)
	V_{WM} VOLTS	@ 1mA $V_{(BR)}$ VOLTS	@ 3V I_D μA	@ 10mA V_F VOLTS	@ 800-3000 MHz dB	f_c MHz	@ 2.5V, 1 MHz C pF
EMIF6-100FC	5.0	6.0	0.1	0.8	30	60	54

Note 1: $\pm 20\%$ tolerance.



GRAPHS



APPLICATION INFORMATION

PRINTED CIRCUIT BOARD RECOMMENDATIONS	
PARAMETER	VALUE
Pad Size on PCB	0.275mm
Pad Shape	Round
Pad Definition	Non-Solder Mask Defined Pads
Solder Mask Opening	0.325mm Round
Solder Stencil Thickness	0.150mm
Solder Stencil Aperture Opening (laser cut, 5% tapered walls)	0.330mm 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	±50µm
Solder Ball Side Coplanarity	±20µm
Maximum Dwell Time Above Liquidous (183°C)	60 Seconds
Soldering Maximum Temperature	240°C

FIGURE 5
RECOMMENDED NON-SOLDER MASK DEFINED PAD ILLUSTRATION

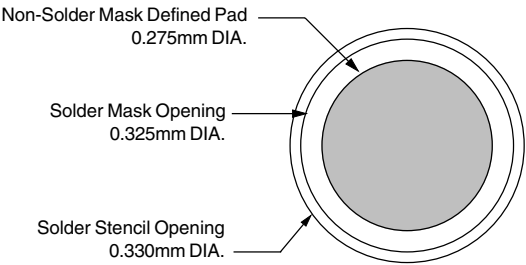
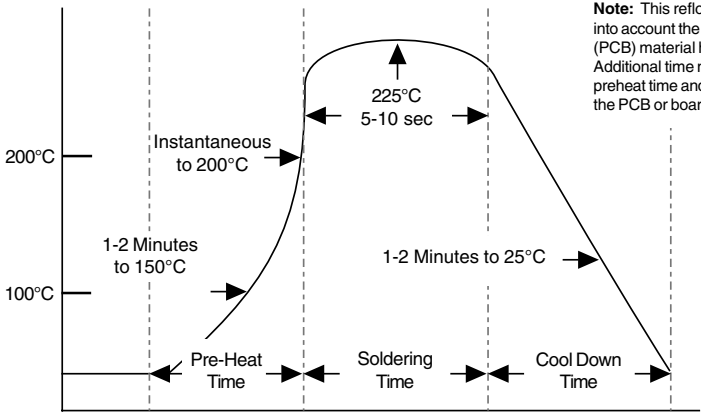
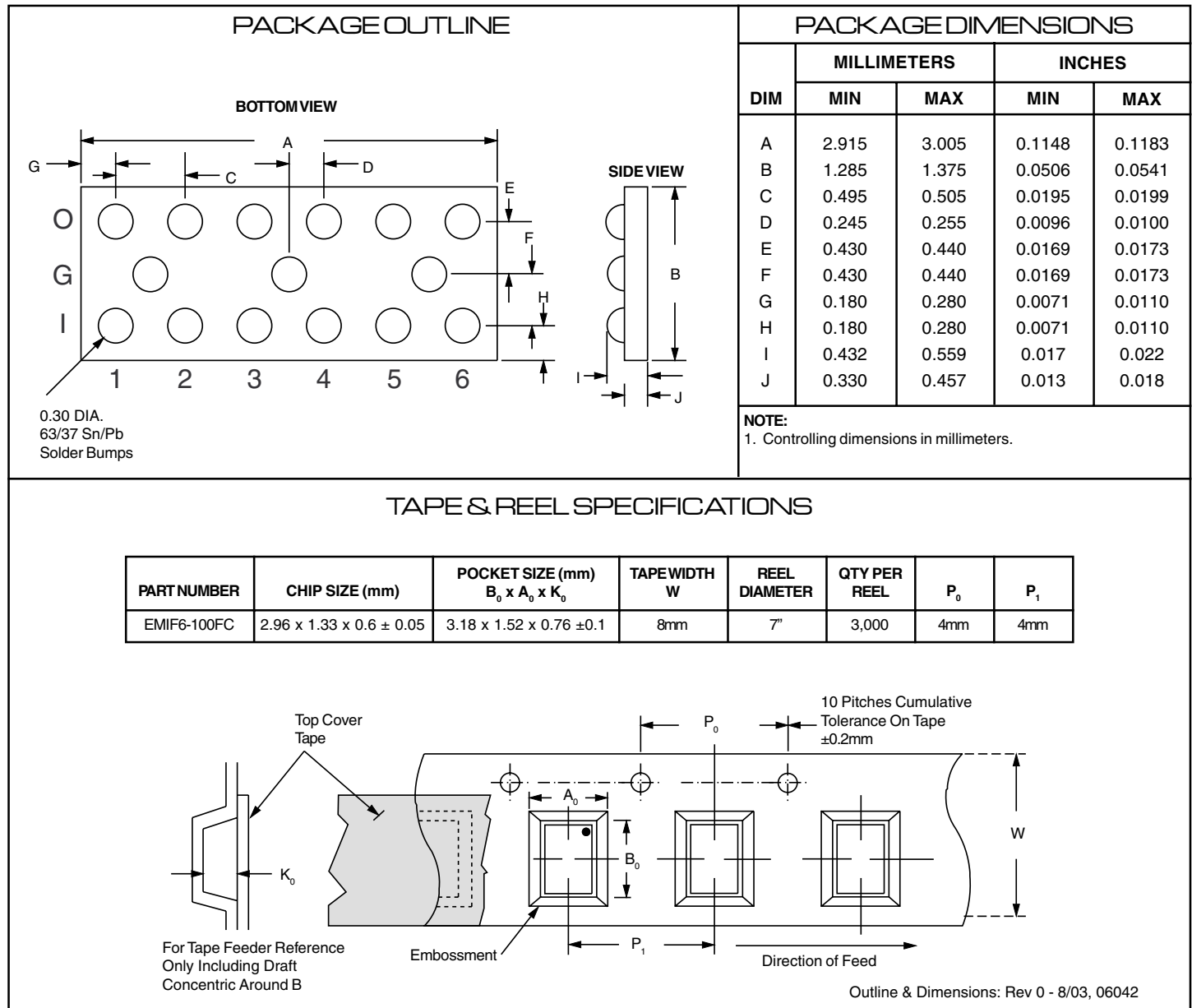


FIGURE 6
SOLDER REFLOW PROFILE



Note: This reflow profile does not take into account the printed circuit board (PCB) material heating time. Additional time may be required for the preheat time and cool down time upon the PCB or board material.

PACKAGE OUTLINE & DIMENSIONS



TAPE & REEL ORDERING NOMENCLATURE

- Surface mount product is taped and reeled in accordance with EIA-481.
- Plastic 8mm Tape: Suffix-T73-1 = 7 Inch Reel - 3,000 pieces per reel, i.e., EMIF6-100FC-T73-1.

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