

**TVS/LOW PASS L/C FILTER ARRAYS**
**APPLICATIONS**

- ✓ High-Speed Networks
- ✓ Graphics/Video Cards
- ✓ Global Positioning Systems
- ✓ Wireless Networks

**IEC COMPATIBILITY (EN61000-4)**

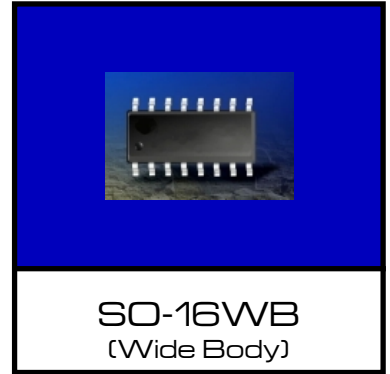
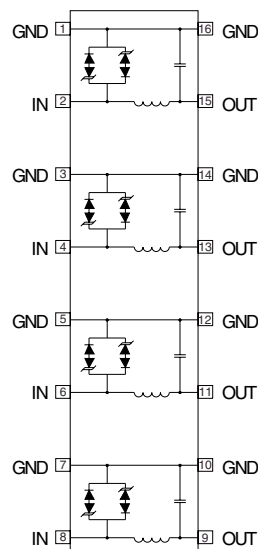
- ✓ 61000-4-2 (ESD): Air - 15kV, Contact - 8kV
- ✓ 61000-4-4 (EFT): 40A - 5/50ns

**FEATURES**

- ✓ 300 Watts Peak Pulse Power per Line (tp=8/20µs)
- ✓ EMI/RFI Low Pass Filtering
- ✓ Very Low Insertion Loss: < 0.5dB up to 200 MHz
- ✓ Excellent Matching Over the Operating Frequency
- ✓ Protects 3.3 - 15 Volt I/O Ports
- ✓ 50 Ohm Network Terminations
- ✓ L/C Bessel Filter
- ✓ **LOW CAPACITANCE: 10pF**

**MECHANICAL CHARACTERISTICS**

- ✓ Molded JEDEC SO-16WB (Wide Body) Package
- ✓ Weight 0.15 grams (Approximate)
- ✓ Flammability rating UL 94V-0
- ✓ 16mm Tape and Reel Per EIA Standard 481
- ✓ Marking: Logo, Part Number & Pin One Defined By Dot on Top of Package


**CIRCUIT DIAGRAM**


# EMC3.3F-LC thru EMC15F-LC

## DEVICE CHARACTERISTICS

MAXIMUM RATINGS @ 25°C Unless Otherwise Specified			
PARAMETER	SYMBOL	VALUE	UNITS
Peak Pulse Power ( $t_p = 8/20\mu s$ ) - See Figure 1	$P_{PP}$	300	Watts
Operating Temperature	$T_J$	-55°C to 150°C	°C
Storage Temperature	$T_{STG}$	-55°C to 150°C	°C

ELECTRICAL CHARACTERISTICS PER LINE @ 25°C Unless Otherwise Specified						
PART NUMBER	MAXIMUM OPERATING VOLTAGE  $V_{(OP)}$ VOLTS	MINIMUM BREAKDOWN VOLTAGE (See Note 1) @ 1mA $V_{(BR)}$ VOLTS	MAXIMUM LEAKAGE CURRENT (See Note 1) @ $V_{WM}$ $I_D$ $\mu A$	MAXIMUM CLAMPING VOLTAGE (See Fig. 5) @ $I_{PP} = 5A$ $V_C$ VOLTS	TYPICAL CAPACITANCE (See Note 2)  @ 0V, 1 MHz C pF	CUT-OFF FREQUENCY  @ -3dB $f_c$ MHz
EMC3.3F-LC	3.3	4.0	100	9.0	10	500
EMC5.0F-LC	5.0	6.0	50	11.0	10	500
EMC8.0F-LC	8.0	8.5	5	16.6	10	500
EMC12F-LC	12.0	13.3	5	24.0	10	500
EMC15F-LC	15.0	16.7	5	30.0	10	500

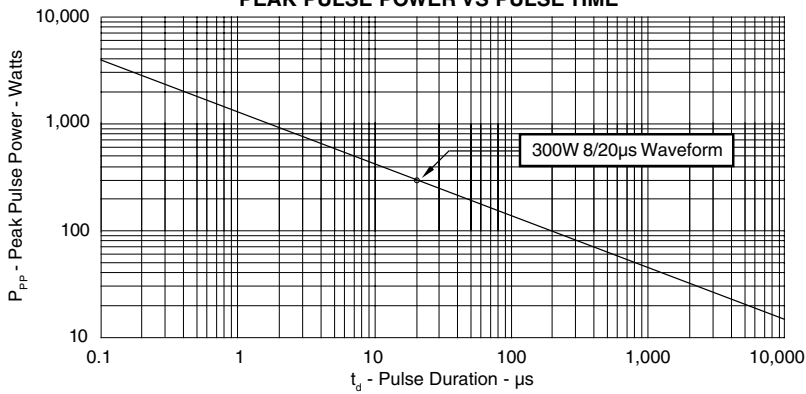
**Note 1:** Apply positive (negative) potential between input pins to ground pins, output open.

**Note 2:** Measure capacitance between output pins to ground pins.

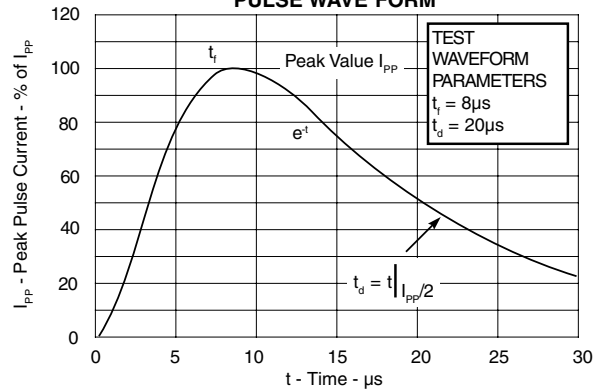
# EMC3.3F-LC thru EMC15F-LC

## GRAPHS

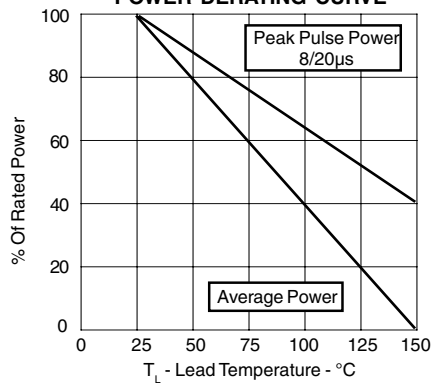
**FIGURE 1  
PEAK PULSE POWER VS PULSE TIME**



**FIGURE 2  
PULSE WAVE FORM**

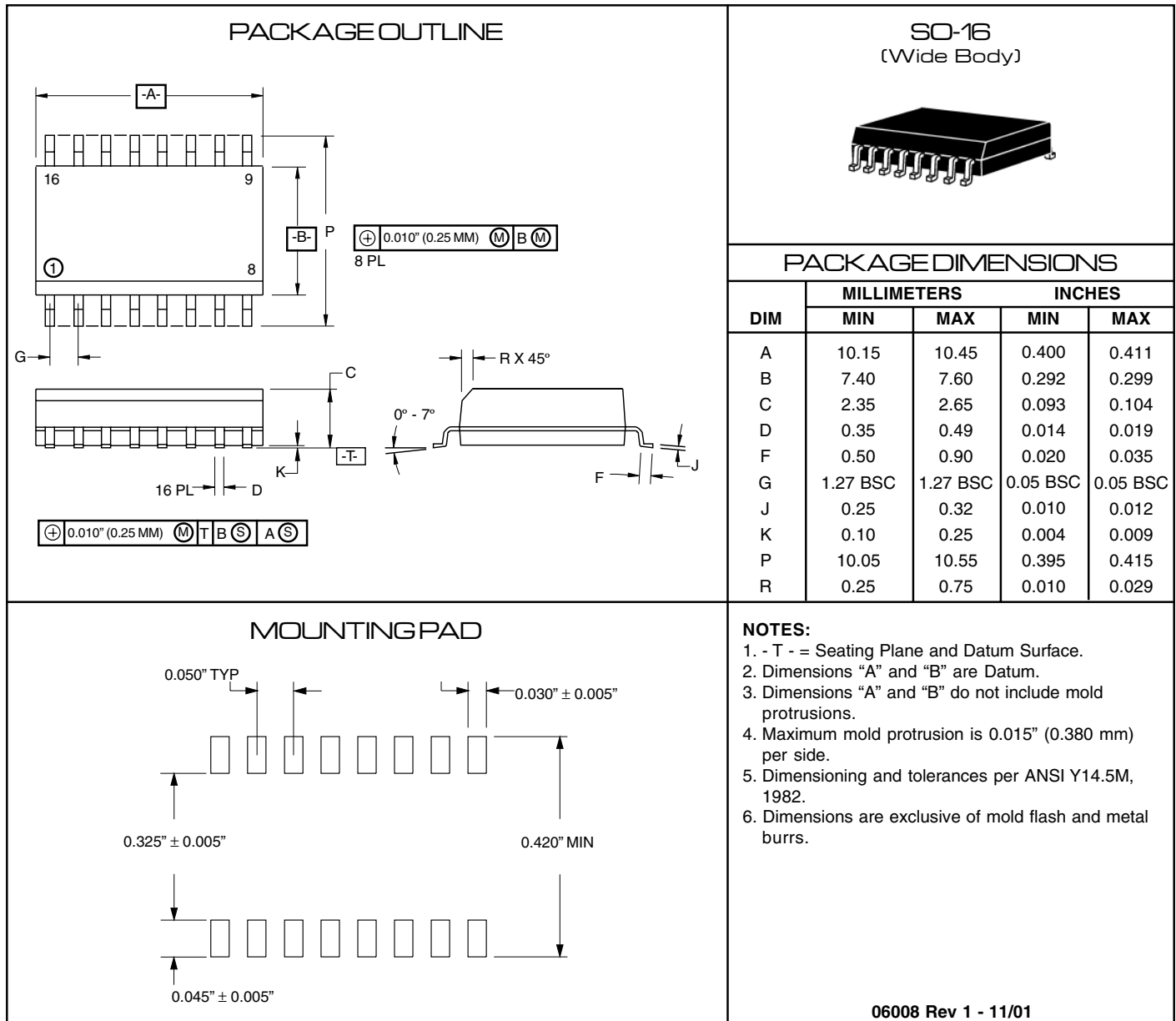


**FIGURE 3  
POWER DERATING CURVE**



# EMC3.3F-LC thru EMC15F-LC

## PACKAGE OUTLINE & DIMENSIONS



### PART NUMBER SUFFIXES USED FOR TAPE & REEL/BULK ORDERING:

Surface mount product is taped and reeled in accordance with EIA-481.  
 Suffix-T13 = 13 Inch Reel - 2,500 pieces per reel i.e: EMC5.0-LC-T13  
 No Suffix = Product Shipped in Tubes of 46 pcs per Tube

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