

EMI FILTER & TVS ARRAY

APPLICATIONS

- ✓ Cellular Phones
- ✓ SMART Cards
- ✓ Notebooks & Handheld Devices
- ✓ Personal Digital Assistants (PDAs)
- ✓ Ground Positioning Systems (GPS)

IEC COMPATIBILITY (EN61000-4)

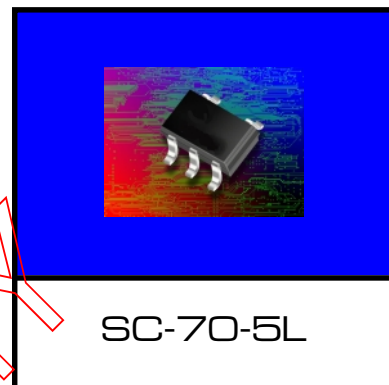
- ✓ 61000-4-2 (ESD): Air - 15kV, Contact - 8kV
- ✓ 61000-4-4 (EFT): 40A - 5/50ns

FEATURES

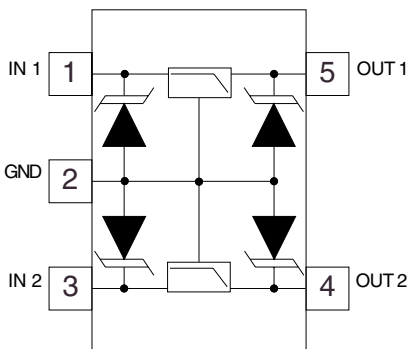
- ✓ ESD Protection > 25 kilovolts
- ✓ 18 Watts Peak Pulse Power per Line (8/20μs)
- ✓ Bidirectional EMI Filtering/TVS Low Pass Filters
- ✓ Low Insertion Loss: -3db Roll-Off @ 200MHz
- ✓ Protects Up to Two (2) Data Lines

MECHANICAL CHARACTERISTICS

- ✓ Molded JEDEC SC-70-5L
- ✓ Weight 0.1 grams (Approximate)
- ✓ Flammability Rating UL 94V-0
- ✓ 8mm Tape and Reel Per EIA Standard 481-1-A
- ✓ Device Marking: Marking Code



PIN CONFIGURATION



EMIF01-100 & EMIF01-150

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}	18	Watts
Operating Temperature	T_J	-55°C to 150°C	°C
Storage Temperature	T_{STG}	-55°C to 150°C	°C
Typical Series Resistance per Line	R	100 to 150	Ohms

ELECTRICAL CHARACTERISTICS PER LINE @ 25°C Unless Otherwise Specified							
PART NUMBER	DEVICE MARKING	RATED STAND-OFF VOLTAGE V_{WM} VOLTS	MINIMUM BREAKDOWN VOLTAGE @ 1mA $V_{(BR)}$ VOLTS	MAXIMUM REVERSE LEAKAGE CURRENT $V_{WM} = 3V$ I_D μA	TYPICAL FORWARD VOLTAGE $I @ 50mA, 8/20\mu s$ V_F VOLTS	CUT-OFF FREQUENCY MHz	MAXIMUM CAPACITANCE (See Note 1) 0V @ 1 MHz C pF
EMIF01-100	E10	3.0	6.0	0.5	1.0	220	50
EMIF01-150	E15	3.0	6.0	0.5	1.0	200	50

Note 1: Cin between pins 1 & 2, 3 & 2, 4 & 2 and 5 & 2.

GRAPHS

FIGURE 1
PEAK PULSE POWER VS PULSE TIME

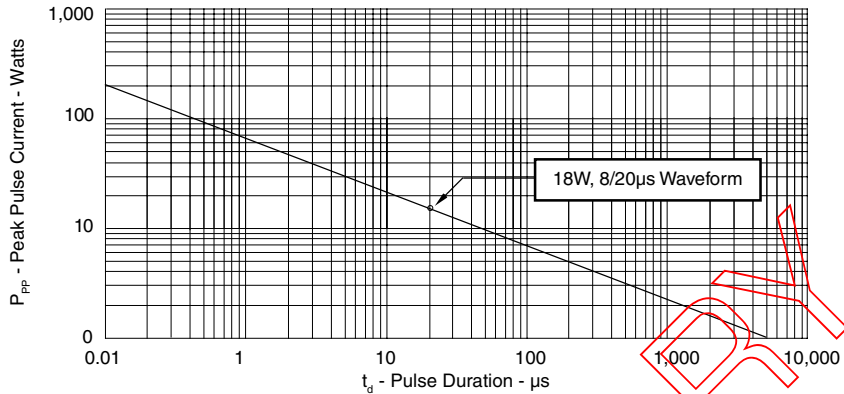


FIGURE 2
PULSE WAVE FORM

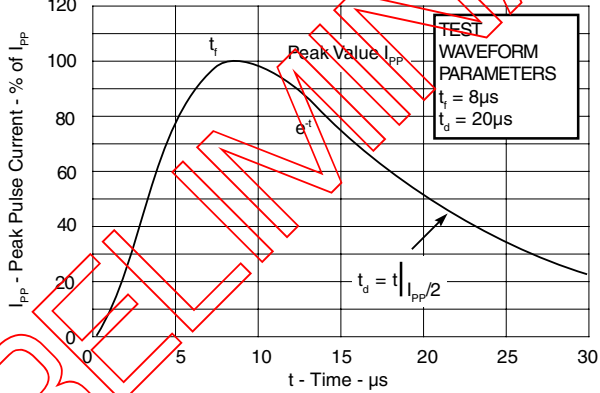
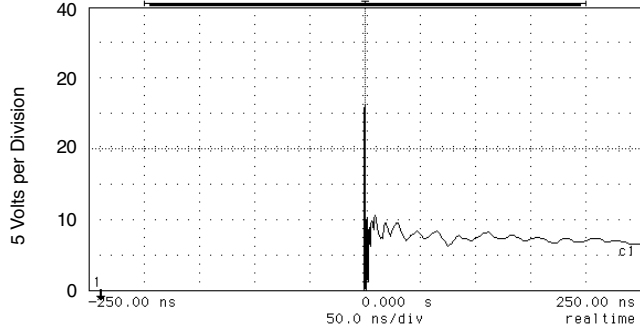


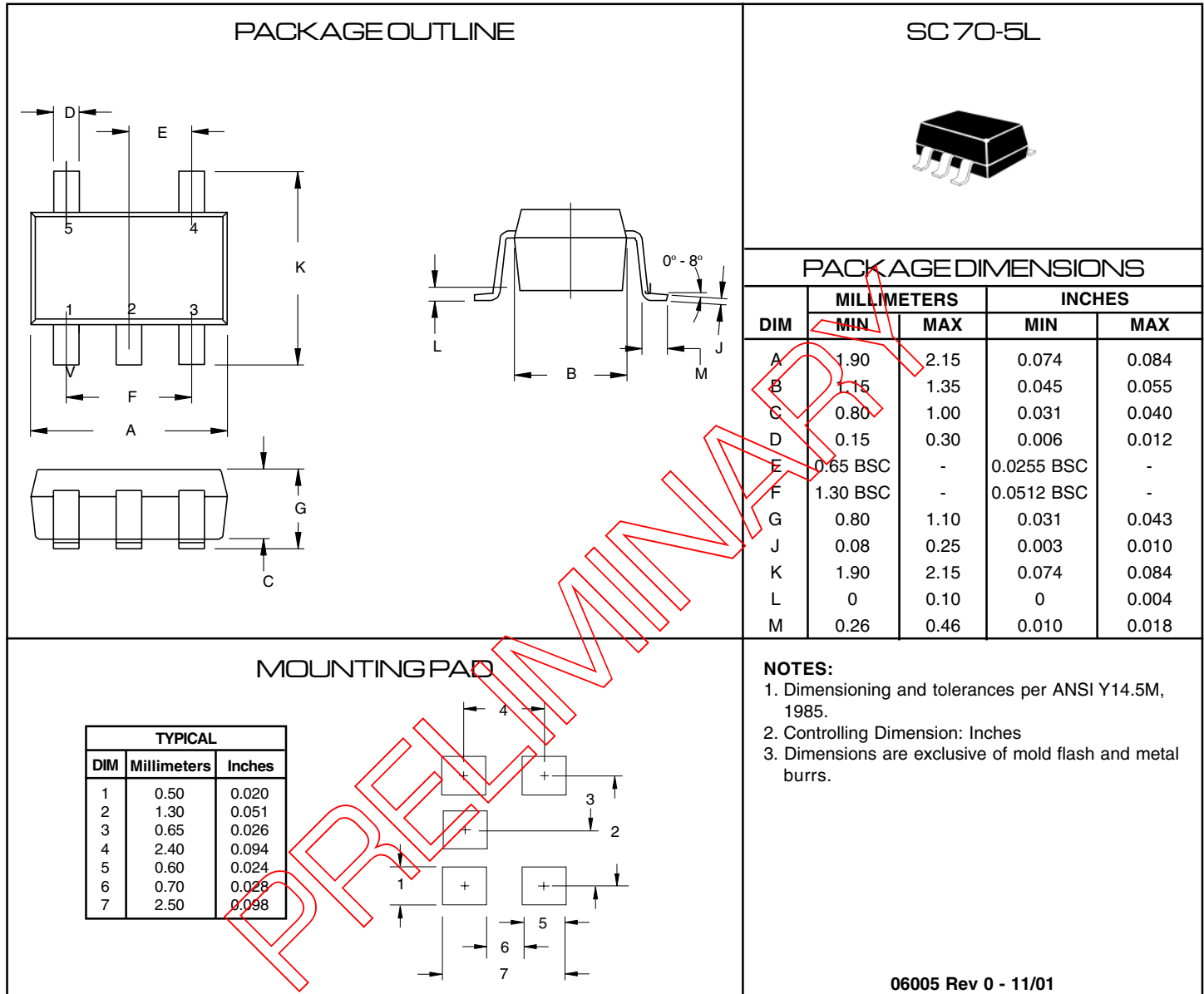
FIGURE 3
OVERSHOOT & CLAMPING VOLTAGE FOR EMIF01-100



ESD Test Pulse: 25 kilovolt, 1/30ns (waveform)

EMIF01-100 & EMIF01-150

PACKAGE OUTLINE & DIMENSIONS



PART NUMBER SUFFIXES USED FOR TAPE & REEL ORDERING:
 Surface mount product is taped and reeled in accordance with EIA-481.
 Suffix-T7 = 7 Inch Reel - 3,000 pieces per reel i.e.: EMIF01-100-T7
 Suffix-T13 = 13 Inch Reel - 10,000 pieces per reel i.e.: EMIF01-100-T13

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