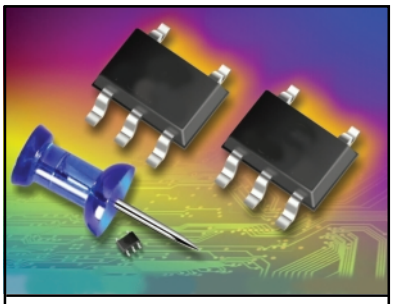
PROTEK DEVICES
Only One Name Means ProTek'Tion™

EMIF01-100 thru EMIF01-150

EMI FILTER/TVS ARRAY

APPLICATIONS

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



SC-70-5L

IEC COMPATIBILITY (EN61000-4)

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

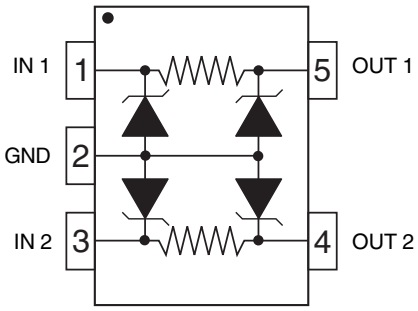
FEATURES

✔ ESD Protection > 25 kilovolts
✔ 18 Watts Peak Pulse Power per Line (tp = 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
✔ Marking: Marking Code & Pin One Defined By Dot on Top of Package

PIN CONFIGURATION



DEVICE CHARACTERISTICS

MAXIMUM RATINGS @ 25°C Unless Otherwise Specified			
PARAMETER	SYMBOL	VALUE	UNITS
Peak Pulse Power (t_p = 8/20µs) - 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} I_D µA	TYPICAL FORWARD VOLTAGE I@50mA, 8/20µs 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	26
EMIF01-150	E15	3.0	6.0	0.5	1.0	200	26

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

FIGURE 1
PEAK PULSE POWER VS PULSE TIME

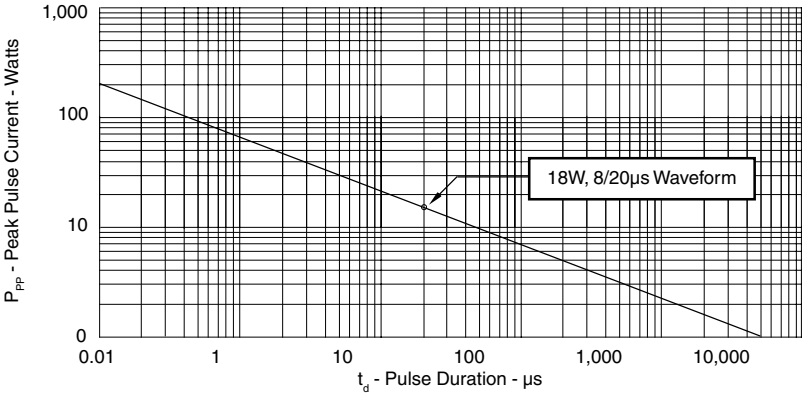
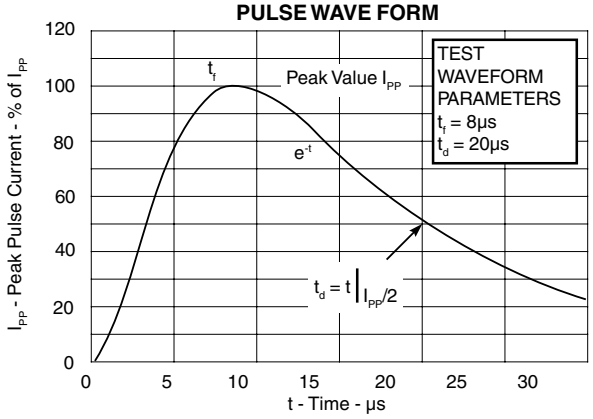


FIGURE 2
PULSE WAVE FORM



GRAPHS

FIGURE 3
INSERTION LOSS - EMIF01-100

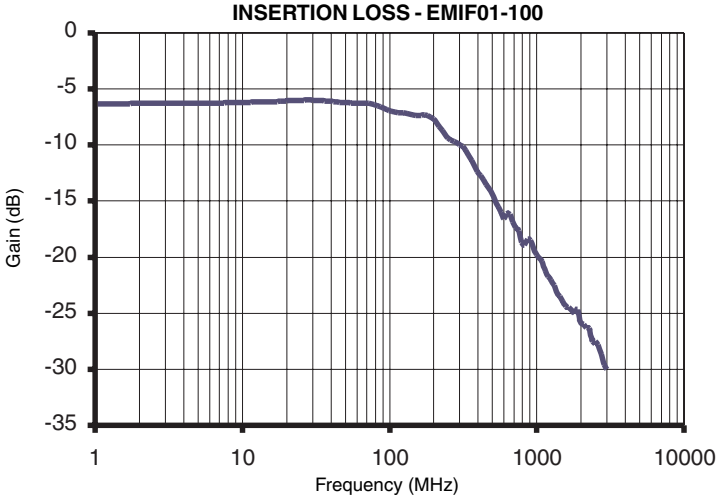


FIGURE 4
INSERTION LOSS - EMIF01-150

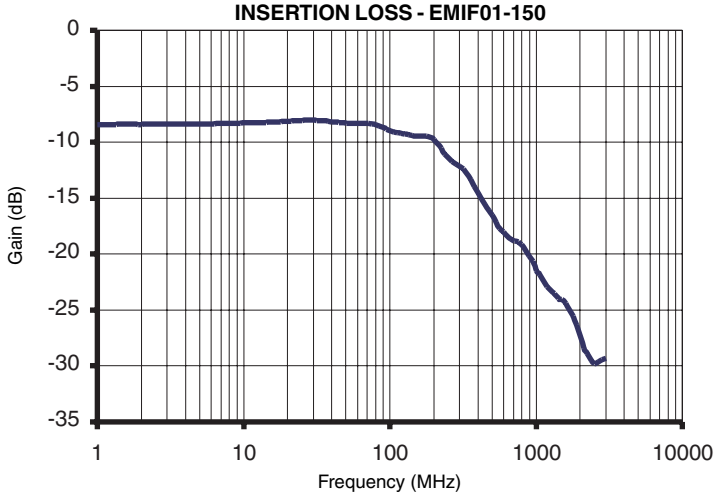
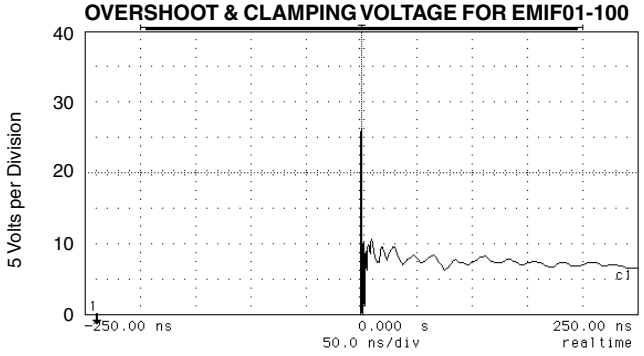


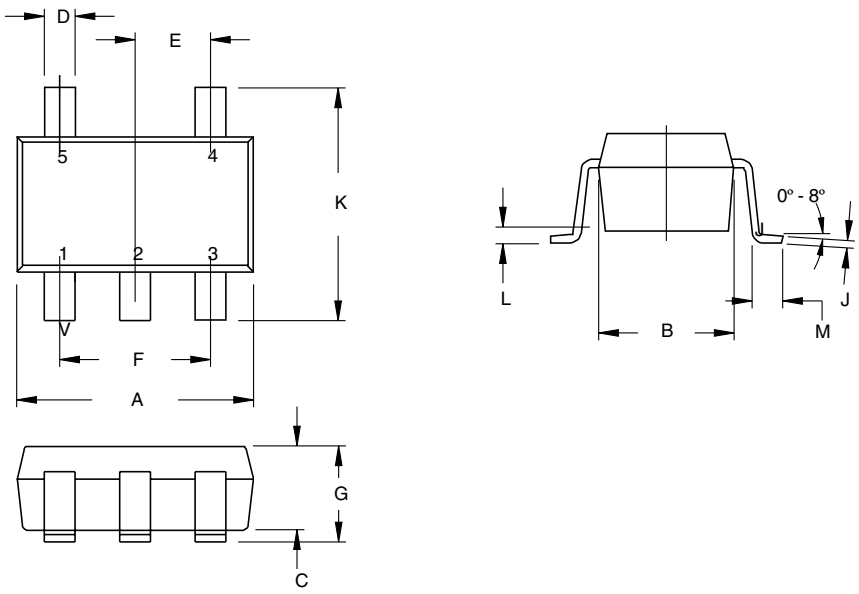
FIGURE 5
OVERSHOOT & CLAMPING VOLTAGE FOR EMIF01-100



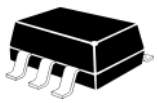
ESD Test Pulse: 25 kilovolt, 1/30ns (waveform)

PACKAGE OUTLINE & DIMENSIONS

PACKAGE OUTLINE



SC -70-5L

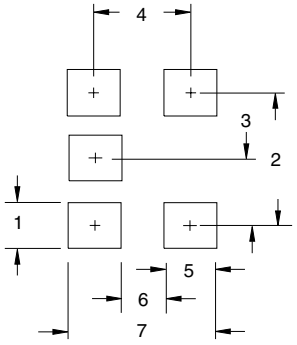


PACKAGE DIMENSIONS

DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	1.90	2.15	0.074	0.084
B	1.15	1.35	0.045	0.055
C	0.80	1.00	0.031	0.040
D	0.15	0.30	0.006	0.012
E	0.65 BSC	-	0.0255 BSC	-
F	1.30 BSC	-	0.0512 BSC	-
G	0.80	1.10	0.031	0.043
J	0.08	0.25	0.003	0.010
K	1.90	2.15	0.074	0.084
L	0	0.10	0	0.004
M	0.26	0.46	0.010	0.018

MOUNTING PAD

TYPICAL		
DIM	Millimeters	Inches
1	0.50	0.020
2	1.30	0.051
3	0.65	0.026
4	2.40	0.094
5	0.60	0.024
6	0.70	0.028
7	2.50	0.098



NOTES
1. Dimensioning and tolerances per ANSI Y14.5M, 1985.
2. Controlling Dimension: Inches
3. Dimensions are exclusive of mold flash and metal burrs.

TAPE & REEL ORDERING NOMENCLATURE

1. Surface mount product is taped and reeled in accordance with EIA-481.
2. Suffix-T7 = 7 Inch Reel - 3,000 pieces per 8mm tape, i.e., *EMIF01-100-T7.*

Outline & Dimensions: Rev 0 - 11/01, 06005

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ProTek Devices
2929 South Fair Lane, Tempe, AZ 85282
Tel: 602-431-8101 Fax: 602-431-2288
E-Mail: sales@protekdevices.com
Web Site: www.protekdevices.com