

EMI FILTER/TVS ARRAY**APPLICATIONS**

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

IEC COMPATIBILITY (EN61000-4)

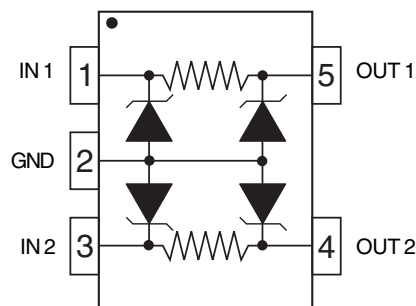
- ✓ 61000-4-2 (ESD): Air - 15kV, Contact - 8kV
- ✓ 61000-4-4 (EFT): 40A - 5/50ns

FEATURES

- ✓ ESD Protection > 25 kilovolts
- ✓ 175 Watts Peak Pulse Power per Line ($t_p = 8/20\mu s$)
- ✓ Bidirectional EMI Filtering
- ✓ Low Insertion Loss: Up to 10MHz, -3db Roll-Off @ 40MHz
- ✓ Protects Up to Two (2) Data Lines
- ✓ RoHS Compliant in Lead-Free Versions

MECHANICAL CHARACTERISTICS

- ✓ Molded JEDEC SC-70-5L
- ✓ Weight 7 milligrams (Approximate)
- ✓ Available in Tin-Lead or Lead-Free Pure-Tin Plating (Annealed)
- ✓ Solder Reflow Temperature:
 - Tin-Lead - Sn/Pb, 85/15: 240-245°C
 - Pure-Tin - Sn, 100: 260-270°C
- ✓ 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 ($t_p = 8/20\mu s$) - See Figure 1	P_{PP}	175	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	40	Ohms

www.DataSheet4U.com

ELECTRICAL CHARACTERISTICS PER LINE @ 25°C Unless Otherwise Specified							
PART NUMBER	DEVICE MARKING	RATED STAND-OFF VOLTAGE	MINIMUM BREAKDOWN VOLTAGE	MAXIMUM REVERSE LEAKAGE CURRENT	MAXIMUM REVERSE LEAKAGE CURRENT	TYPICAL CAPACITOR (Per Junction)	MAXIMUM CAPACITANCE (See Note 1)
		V_{WM} VOLTS	@ 1mA $V_{(BR)}$ VOLTS	@ V_{WM} I_D μA	@ 3.3V I_D μA	@ 0V, 1 MHz C_J pF	@ 0V, 1 MHz C_{TOT} pF
STF701	05F	5.0	6.0	5.0	1.0	40	160

Note 1: Capacitance measured between input and output, per line.

FIGURE 1
PEAK PULSE POWER VS PULSE TIME

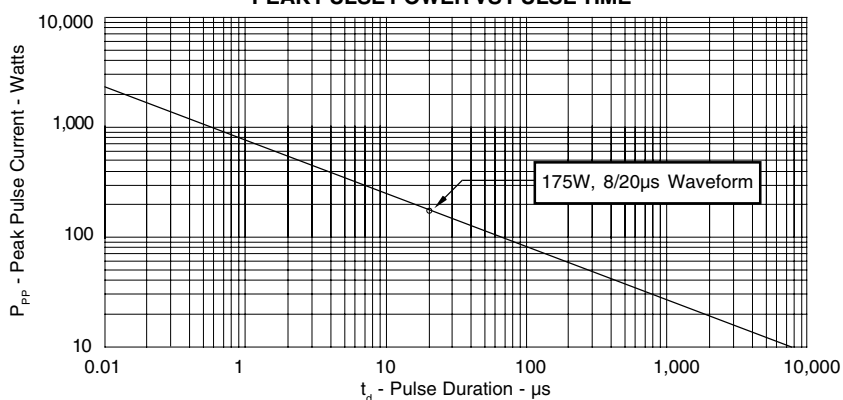
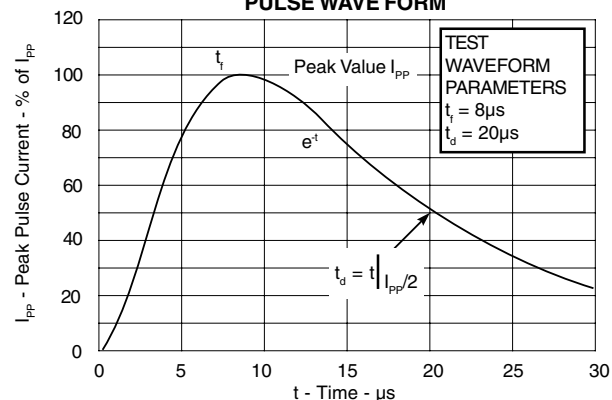
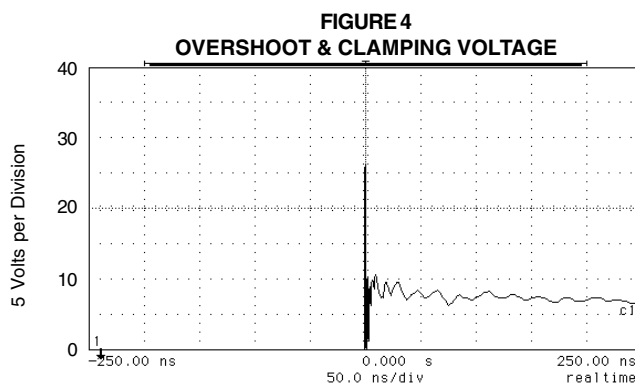
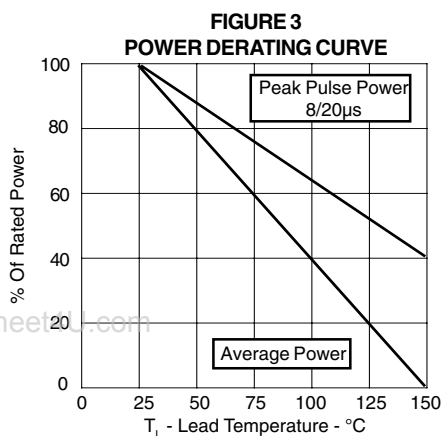


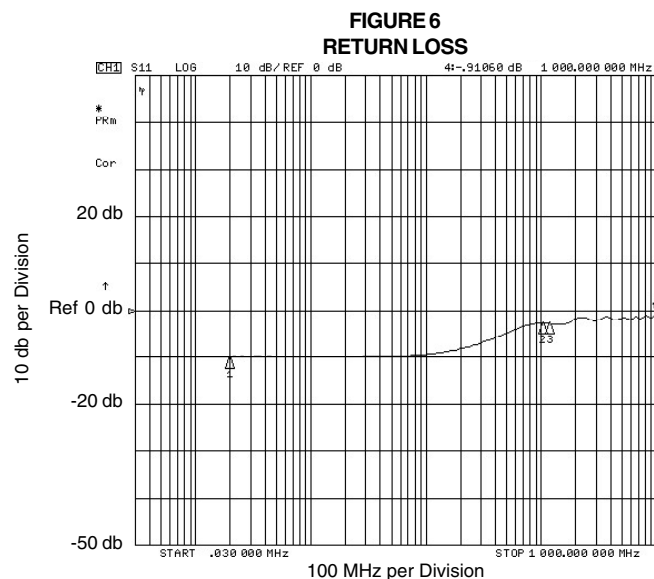
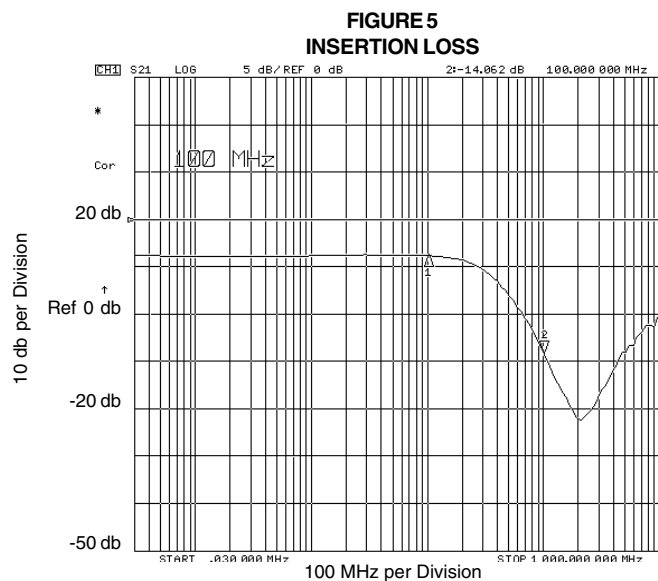
FIGURE 2
PULSE WAVE FORM



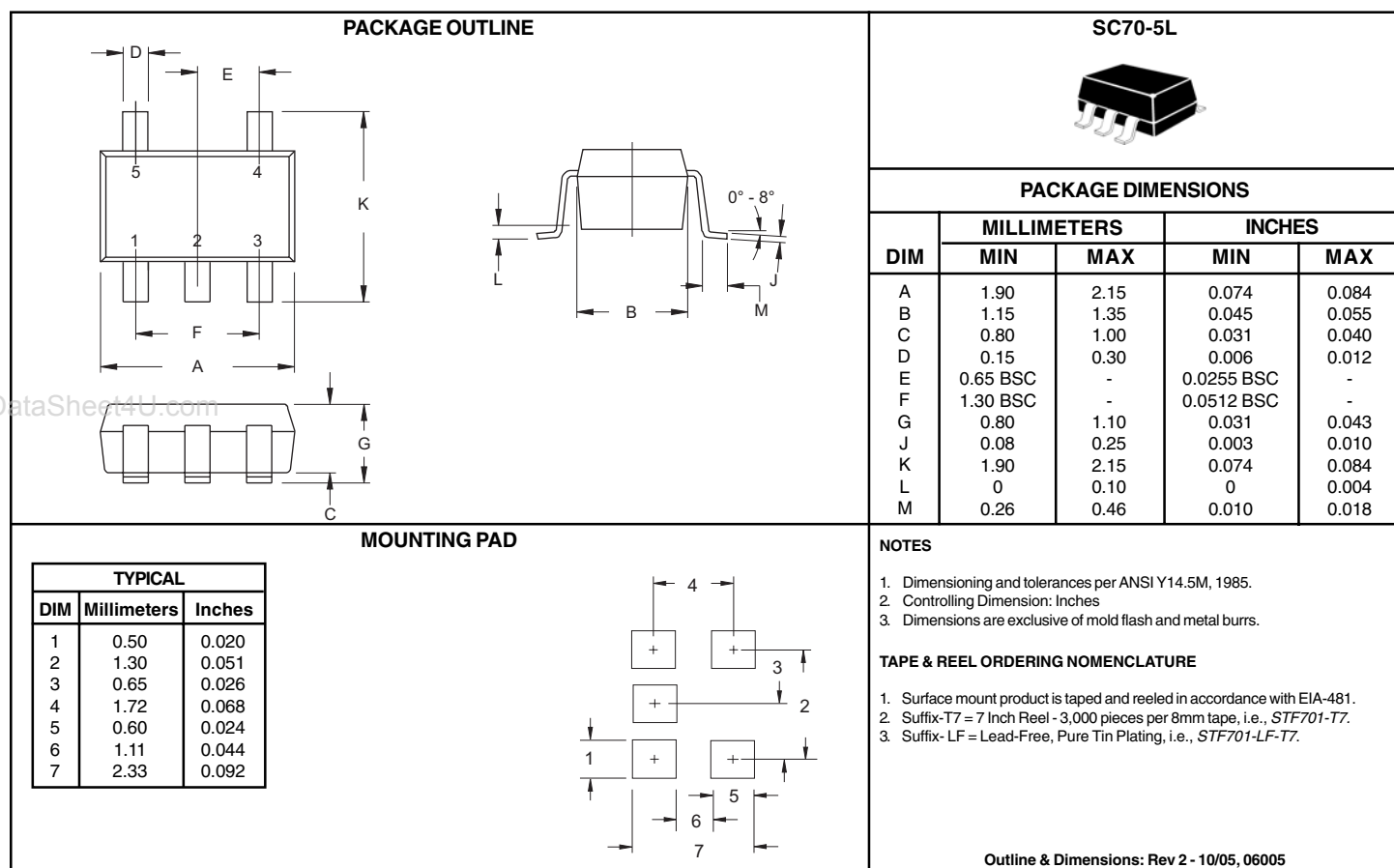
GRAPHS



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

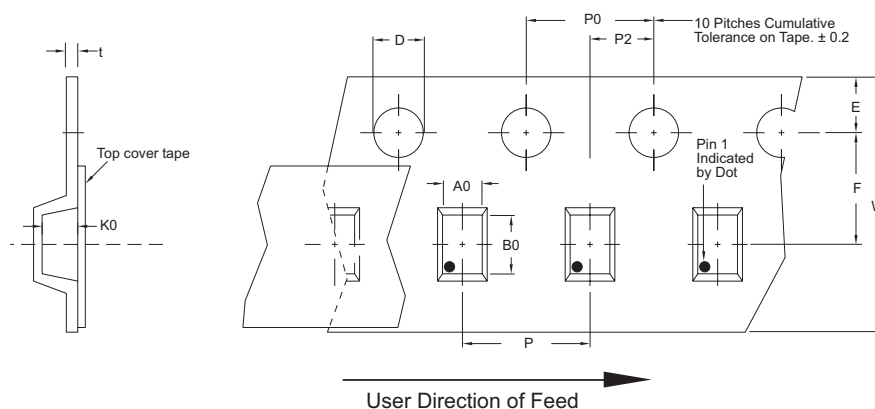


PACKAGE OUTLINE & DIMENSIONS



Tape & Reel Specifications (Dimensions in millimeters)

Reel Dia.	Tape Width	A0	B0	K0	D	E	F	W	P0	P2	P	tmax
178mm (7")	8mm	2.25 ± 0.10	2.34 ± 0.10	1.22 ± 0.10	1.50 ± 0.10	1.75 ± 0.10	3.50 ± 0.05	8.00 ± 0.30	4.00 ± 0.10	2.00 ± 0.05	4.00 ± 0.10	0.25



COPYRIGHT © ProTek Devices 2005

SPECIFICATIONS: ProTek reserves the right to change the electrical and or mechanical characteristics described herein without notice (except JEDEC).

DESIGN CHANGES: ProTek reserves the right to discontinue product lines without notice, and that the final judgement concerning selection and specifications is the buyer's and that in furnishing engineering and technical assistance, ProTek assumes no responsibility with respect to the selection or specifications of such products.

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