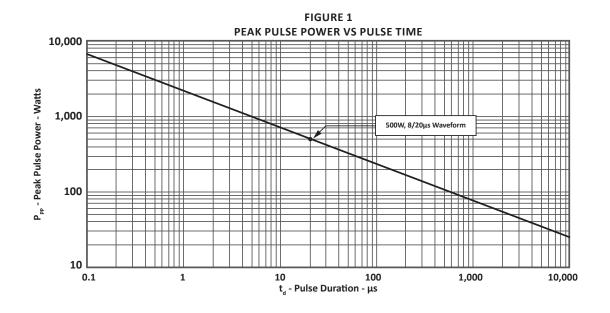
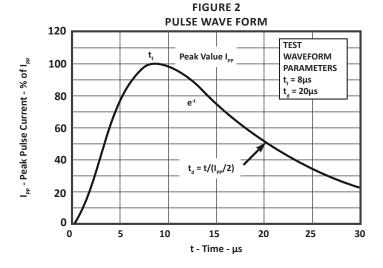
TYPICAL DEVICE CHARACTERISTICS

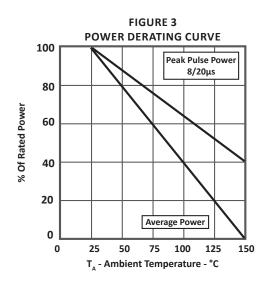
MAXIMUM RATINGS @ 25°C Unless Otherwise Specified								
PARAMETER SYMBOL VALUE UNITS								
Operating Temperature	T _L	-55 to 150	°C					
Storage Temperature	T _{stg}	-55 to 150	°C					
Peak Pulse Power (tp = 8/20μs) - See Figure 1	P _{pp}	500	Watts					
Peak Forward Voltage - I _F = 1A, 8/20μs	V _F	1.5	Volts					

ELECTRICAL CHARACTERISTICS PER LINE @ 25°C Unless Otherwise Specified									
PART NUMBER	DEVICE MARKING	STAND-OFF BREAKDOWN CLAMPING CLAMPING VOLTAGE VOLTAGE CUR VOLTAGE (Fig. 2) (Fig. 2)		VOLTAGE VOLTAGE VOLTAGE					
		V _{wм} VOLTS	@ 1mA V _(BR) VOLTS	@ I _p = 1A V _c VOLTS	@ 8/20μs V _c @ Ι _{ρρ} VOLTS	@ V _{wм} Ι _D μΑ	OV, 1MHz C _{J(SD)} pF		
PSR05LC	T5	5.0	6.0	9.8	20.0V @ 28.0A	5	2.5		

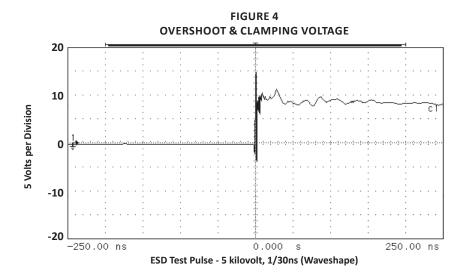
TYPICAL DEVICE CHARACTERISTICS







TYPICAL DEVICE CHARACTERISTICS



APPLICATION INFORMATION

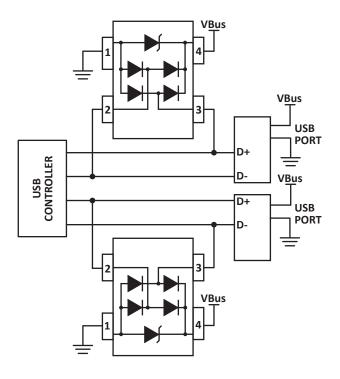


FIGURE 1 - USB PROTECTION

Two PSR05LCs in a Common-Mode configuration. Circuit connectivity is as follows:

- Pins 2 and 3 are connected to the datalines
- Pin 1 is connected to ground
- Pin 4 is connected to the databus

CIRCUIT BOARD RECOMMENDATIONS

Circuit board layout is critical for electromagnetic compatibility protection. The following guidelines are recommended:

- The protection device should be placed near the input terminals or connectors, the device will divert the transient current immediately before it can be coupled into the nearby traces.
- The path length between the TVS device and the protected line should be minimized.
- All conductive loops including power and ground loops should be minimized.
- The transient current return path to ground should be kept as short as possible to reduce parasitic inductance.
- Ground planes should be used whenever possible. For multilayer PCBs, use dedicated ground planes.



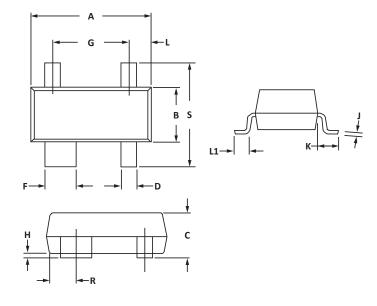


SOT-143 PACKAGE INFORMATION

OUTLINE DIMENSIONS								
DIM	MILLIN	IETERS	INCHES					
DIIVI	MIN	MAX	MIN	MAX				
А	2.80	3.04	0.110	0.120				
В	1.20	1.39	0.047	0.055				
С	0.84	1.14	0.033	0.045				
D	0.39	0.50	0.015	0.020				
F	0.79	0.93	0.031	0.037				
G	1.78	2.03	0.070	0.080				
J	0.08	0.15	0.003	0.006				
K	0.46	0.60	0.018	0.024				
L	0.445	0.60	0.0175	0.024				
L1	0.40	0.60	0.016	0.024				
R	0.72	0.83	0.028	0.033				
S	2.11	2.48	0.083 0.098					
<u> </u>	2.11	2.40	0.005	0.036				



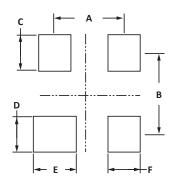
- 1. Dimensioning and tolerances per ANSI Y14.M, 1985.
- 2. Controlling dimension: inches.
- 3. Dimensions are exclusive of mold flash and metal burrs.



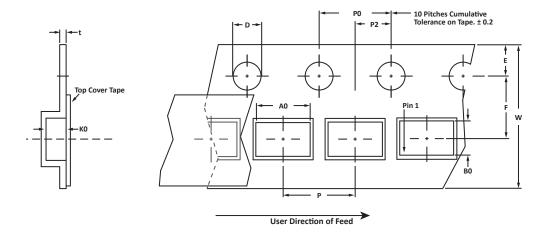
PAD LAYOUT DIMENSIONS								
DIM	MILLIN	IETERS	INCHES					
	MIN	MAX	MIN	MAX				
А	1.88	2.13	0.074	0.084				
В	1.80	2.06	0.071	0.081				
С	0.71	0.97	0.028	0.038				
D	0.76	1.02	0.030	0.040				
Е	1.07	1.32	0.042	0.052				
F	0.71	0.97	0.028	0.038				
E	1.07	1.32	0.042	0.052				

NOTES

1. Controlling dimension: inches.



TAPE AND REEL



SPECIFICATIONS												
REEL DIA.	TAPE WIDTH	A0	В0	КО	D	E	F	W	P0	P2	Р	tmax
178mm (7")	8mm	3.10 ± 0.10	2.70 ± 0.10	1.35 ± 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

NOTES

- 1. Dimensions are in millimeters.
- 2. Surface mount product is taped and reeled in accordance with EIA-481.
- 3. Suffix T7 = 7" Reel 3,000 pieces per 8mm tape.
- 4. Suffix T13 = 13" Reel 10,000 pieces per 8mm tape.
- 5. Marking on Part marking code (see page 2) and date code.

Package outline, pad layout and tape specifications per document number 06011.R4 8/10.

ORDERING INFORMATION								
BASE PART NUMBER	PART NUMBER LEADFREE SUFFIX TAPE SUFFIX QTY/REEL REEL SIZE TUBE (
PSR05LC	n/a	-T7	3,000	7"	n/a			
PSR05LC	n/a	-T13	10,000	13"	n/a			
This device is only available in a Lead-Free configuration.								



COMPANY INFORMATION

COMPANY PROFILE

In business more than 25 years, ProTek Devices™ is a privately held semiconductor company. The company offers a product line of overvoltage protection and overcurrent protection components. These include transient voltage suppressor array (TVS arrays) avalanche breakdown diode, steering diode TVS array and electronics SMD chip fuses. These components deliver circuit protection in electronic systems from numerous overvoltage and overcurrent events. They include lightning; electrostatic discharge (ESD); nuclear electromagnetic pulses (NEMP); inductive switching; and electromagnetic interference (EMI) / radio frequency interference (RFI). ProTek Devices also offers LED wafer die for ESD protection and related high frequency products. ProTek Devices is ISO 9001:2015 certified.

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