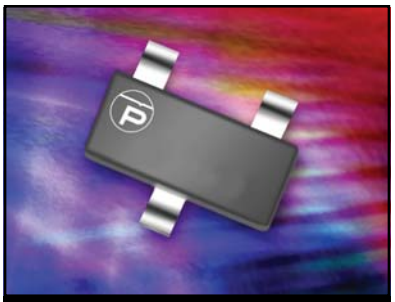
PROTEK DEVICES

PSM712

STANDARD CAPACITANCE TVS ARRAY



SOT-23

APPLICATIONS

✔ RS-485 Transceivers
✔ Network Interfaces
✔ Wireless Systems
✔ Portable Electronics

IEC COMPATIBILITY (EN61000-4)

✔ 61000-4-2 (ESD): Air - 15kV, Contact - 8kV
✔ 61000-4-4 (EFT): 40A - 5/50ns
✔ 61000-4-5 (Surge): 24A, 8/20μs - Level 2(Line-Ground) & Level 3(Line-Line)

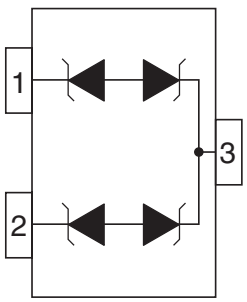
FEATURES

✔ ESD Protection > 40 kilovolts
✔ 600 Watts Peak Pulse Power per Line (tp = 8/20μs)
✔ Asymmetrical Data Line Protection
✔ RoHS Compliant

MECHANICAL CHARACTERISTICS

✔ Molded JEDEC SOT-23 Package
✔ Weight 8 milligrams (Approximate)
✔ Available in Lead-Free Pure-Tin Plating(Annealed)
✔ Solder Reflow Temperature:
Pure-Tin - Sn, 100: 260-270°C
✔ Consult Factory for Leaded Device Availability
✔ Flammability Rating UL 94V-0
✔ 8mm Tape and Reel Per EIA Standard 481
✔ Marking: Marking Code

PIN CONFIGURATION



DEVICE CHARACTERISTICS

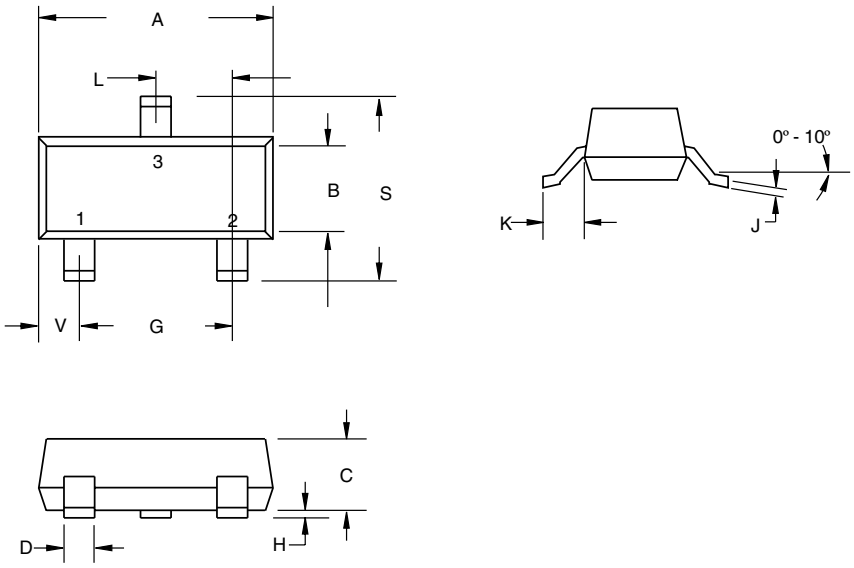
MAXIMUM RATINGS @ 25°C Unless Otherwise Specified			
PARAMETER	**SYMBOL**	**VALUE**	**UNITS**
Peak Pulse Power (t_p = 8/20µs) - See Figure 1	P_{PP}	600	Watts
Operating Temperature	T_L	-55 to 150	℃
Storage Temperature	T_{STG}	-55 to 150	℃

ELECTRICAL CHARACTERISTICS PER LINE @ 25°C Unless Otherwise Specified							
PART NUMBER (See Note 1)	DEVICE MARKING CODE (See Note 2)	RATED STAND-OFF VOLTAGE V_{WM} VOLTS	MINIMUM BREAKDOWN VOLTAGE @ 1mA $V_{(BR)}$ VOLTS	MAXIMUM CLAMPING VOLTAGE (See Fig. 2) @ I_P = 1A V_C VOLTS	MAXIMUM CLAMPING VOLTAGE (See Fig. 2) @8/20µs V_C @ I_{PP}	MAXIMUM LEAKAGE CURRENT @V_{WM} I_D µA	TYPICAL CAPACITANCE @0V, 1 MHz C pF
Pin 3-1 & 3-2	712	7.0	7.5	11.0	17V @34A	20	75
Pin 1-3 & 2-3	712	12.0	13.3	19.0	30V @ 30A	1	75

Note 1: For 7V, pin 3 is positive. For 12V, pins 1 and 2 are positive.
Note 2: Marking code applies to same device.

SOT-23 PACKAGE OUTLINE & DIMENSIONS

PACKAGE OUTLINE

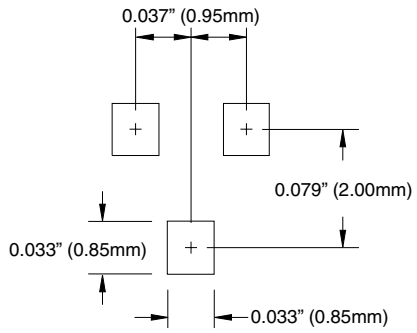


SOT-23

PACKAGE DIMENSIONS

	MILLIMETERS		INCHES	
DIM	MIN	MAX	MIN	MAX
A	2.80	3.04	0.1102	0.1197
B	1.20	1.40	0.0472	0.0551
C	0.89	1.11	0.0350	0.0440
D	0.37	0.50	0.0150	0.0200
G	1.78	2.04	0.0701	0.0807
H	0.013	0.100	0.0005	0.0040
J	0.085	0.177	0.0034	0.0070
K	0.45	0.60	0.0180	0.0236
L	0.89	1.02	0.0350	0.0401
S	2.10	2.50	0.0830	0.0984
V	0.45	0.60	0.0177	0.0236

MOUNTING PAD



NOTES

1. Dimensioning and tolerances per ANSI Y14.5M, 1985.
2. Controlling Dimension: Inches
3. Pin 3 is the cathode (Unidirectional Only).
4. 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., *PSM712-T7.*
3. Suffix-T13 = 13 Inch Reel - 10,000 pieces per 8mm tape, i.e., *PSM712-T13.*
4. Suffix - LF = Lead-Free, Pure-Tin Plating, i.e., *PSM712-LF-T7.*

Outline & Dimensions: Rev 1 - 11/01, 06012

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