

STANDARD CAPACITANCE TVS ARRAY

APPLICATIONS

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

IEC COMPATIBILITY (EN61000-4)

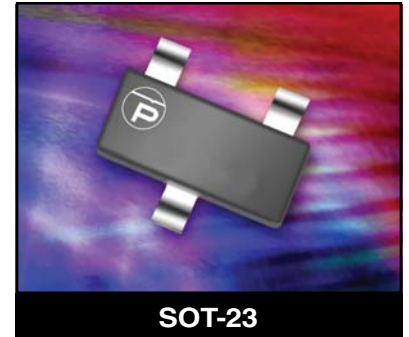
- ✓ 61000-4-2 (ESD): Air - 15kV, Contact - 8kV
- ✓ 61000-4-4 (EFT): 40A - 5/50ns
- ✓ 61000-4-5 (Surge): 24A, 8/20 μ s - Level 2(Line-Ground) & Level 3(Line-Line)

FEATURES

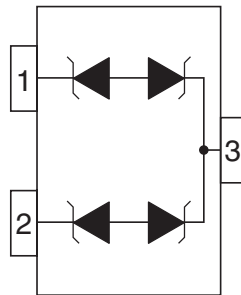
- ✓ ESD Protection > 40 kilovolts
- ✓ 600 Watts Peak Pulse Power per Line (tp = 8/20 μ s)
- ✓ Asymmetrical Data Line Protection
- ✓ RoHS Compliant

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



PSM712

DEVICE CHARACTERISTICS

MAXIMUM RATINGS @ 25°C Unless Otherwise Specified

PARAMETER	SYMBOL	VALUE	UNITS
Peak Pulse Power ($t_p = 8/20\mu\text{s}$) - See Figure 1	P_{PP}	600	Watts
Operating Temperature	T_L	-55 to 150	°C
Storage Temperature	T_{STG}	-55 to 150	°C

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) @ 8/20 μs $V_C @ I_{PP}$	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.

PSM712

SOT-23 PACKAGE OUTLINE & DIMENSIONS

PACKAGE OUTLINE

The package outline drawings show a rectangular component with three pins. Dimensions include: A (total length), B (width), C (height), D (pin width), G (pin length), H (pin thickness), J (lead length), K (lead thickness), L (lead width), S (total height), and V (pin spacing).

SOT-23

PACKAGE DIMENSIONS				
DIM	MILLIMETERS		INCHES	
	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

The mounting pad layout shows three pads. The top two pads are spaced 0.037" (0.95mm) apart. The bottom pad is centered below them. The distance from the center of the top pads to the center of the bottom pad is 0.079" (2.00mm). The width of the bottom pad is 0.033" (0.85mm), and the distance from the center of the bottom pad to the center of the top pads is also 0.033" (0.85mm).

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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