

TRANSIENT VOLTAGE SUPPRESSOR

Bidirectional, 5 to 48V, 1000 Watts Peak

EPS5 Series

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FEATURES

- Bidirectional
- 1000W for 8 x 20 microsec pulse
- Clamping time in pico seconds
- Extremely low leakage current
- Voidless hermetically sealed glass package
- Metallurgically bonded construction

DESCRIPTION

These bidirectional, high speed, voltage protection devices are ideally suited for applications where fast response is essential. The use of passivated die metallurgically bonded on both sides assures long term reliability. This series is especially useful in protecting microprocessor, MOS, CMOS, TTL, Schottky TTL, ECL, I²L and linear integrated circuits from spurious transient disturbances including NEMP (Nuclear Electromagnetic Pulse) and electrostatic discharge.

ABSOLUTE MAXIMUM RATINGS AT 25°C (PER LEG)

Stand-Off Voltage 5 to 48V (See Characteristics Table)

Peak Pulse Power

(8 x 20 microsec pulse) 1000W (See Figure 1)

Peak Pulse Power (1 millisecc pulse) 150W (See Figure 2)

Peak Pulse Current See Characteristics Table

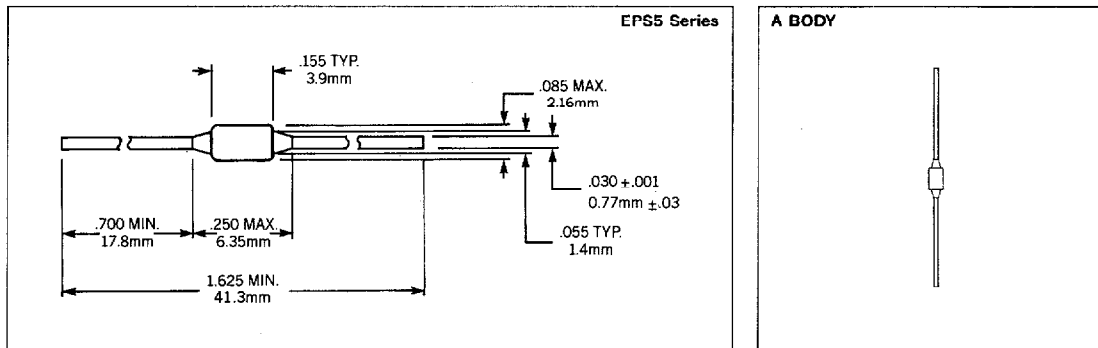
Breakdown Voltage See Characteristics Table

Power Continuous

(T_L = 75°C, L = 1/8") 2.5W

Storage and Operating Temperature -65°C to +175°C

MECHANICAL SPECIFICATIONS



THESE DEVICES ALSO AVAILABLE IN SURFACE MOUNT PACKAGE. SEE SECTION 10

Microsemi Corp.
Watertown
The diode experts

ELECTRICAL CHARACTERISTICS AT 25°C

Type	Stand-Off Voltage V_K	Minimum Breakdown Voltage BV(min) @ 1mA	Maximum Leakage Current I_K @ V_K	Maximum Peak Current* I_P	Maximum Clamping Voltage* V_C @ 10A	Maximum Temp. Coef. of BV
	(V)	(V)	(μ A)	(A)	(V)	(%/°C)
EPS5	5	6.0	50	89.4	9.5	.030
EPS8	8	9.0	2	62.1	13.7	.040
EPS12	12	13.8	1	40.3	21.6	.050
EPS15	15	16.7	1	33.9	26.0	.055
EPS17	17	19.0	1	30.8	29.2	.060
EPS24	24	28.4	1	22.0	43.2	.070
EPS28	28	31.0	1	19.2	47.8	.075
EPS33	33	36.8	1	16.4	56.7	.080
EPS48	48	54.0	1	11.2	84.3	.090

*See Figure 1.

