

MDE Semiconductor, Inc.

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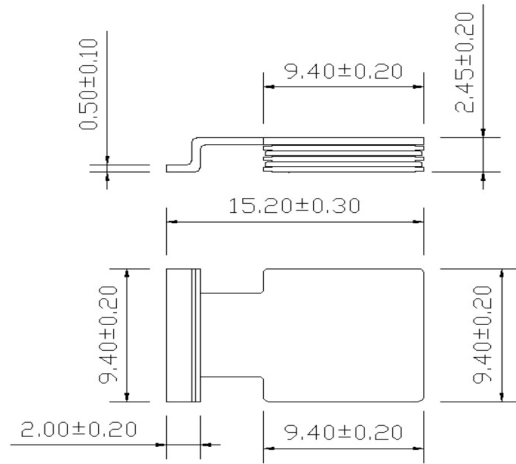
MAX 40 S-LEAD CELL Series

HIGH CURRENT TRANSIENT VOLTAGE SUPPRESSOR (TVS) DIODE STAND-OFF VOLTAGE 12 to 40 Volts

40000 Watt Peak Pulse Power

FEATURES

- Glass passivated junction
- Bidirectional
- 40000W Peak Pulse Power capability on 10x1000 μ s waveform
- Excellent clamping capability
- Repetition rate (duty cycle):0.05%
- Sharp breakdown voltage
- Low incremental surge resistance
- Fast response time: typically less than 1.0 ps from 0 volts to BV
- Typical IR less than 20 μ A above 10V
- Operation Temperature: -55°C to +150°C



Dimensions in millimeters

MECHANICAL DATA

Terminals: Ag Plated Axial leads, solderable per MIL-STD-750, Method 2026

Mounting Position: Any

Weight: 1.490 \pm 0.149g (0.053 \pm 0.005 ounces)

DEVICES FOR BIPOLAR APPLICATIONS

Bidirectional use CA Suffix. Electrical characteristics apply in both directions.

Unidirectional A Suffix available as a special order

MAXIMUM RATINGS AND CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

RATING	SYMBOL	VALUE	UNITS
Peak Pulse Power Dissipation on 10/1000 μ s waveform	Pppm	Minimum 20000	Watts
Peak Pulse Current of on 10-1000 μ s waveform	Ippm	SEE CURVE	Amps

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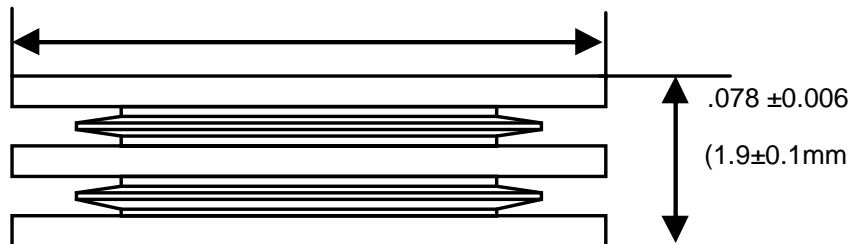
MAX 40 S-LEAD CELL Series

PART NUMBER	Numbers of Cell	REVERSE STAND-OFF VOLTAGE $V_{RWM}(V)$	BREAKDOWN VOLTAGE $V_{BR}(V)$ MIN. @ I_T	TEST CURRENT I_T (mA)	PEAK PULSE CURRENT I_{pp} (A)	REVERSE LEAKAGE @ V_{RWM} $I_R(\mu A)$	MAXIMUM CLAMPING VOLTAGE @ I_{pp} V_C (V)
MAX40-12CA S-LEAD CELL	2	12	14.0	50	2010.1	2000	19.9
MAX40-13CA S-LEAD CELL	2	13	15.2	50	1860.5	2000	21.5
MAX40-14CA S-LEAD CELL	2	14	16.4	50	1724.1	2000	23.2
MAX40-15CA S-LEAD CELL	2	15	17.6	5	1639.3	500	24.4
MAX40-16CA S-LEAD CELL	2	16	18.8	5	1538.5	200	26.0
MAX40-17CA S-LEAD CELL	2	17	19.9	5	1449.3	50	27.6
MAX40-18CA S-LEAD CELL	2	18	21.1	5	1369.6	20	29.2
MAX40-20CA S-LEAD CELL	2	20	23.4	5	1234.6	20	32.4
MAX40-22CA S-LEAD CELL	2	22	25.7	5	1126.8	20	35.5
MAX40-24CA S-LEAD CELL	2	24	28.1	5	1028.3	20	38.9
MAX40-26CA S-LEAD CELL	2	26	30.4	5	950.1	20	42.1
MAX40-28CA S-LEAD CELL	2	28	32.8	5	881.1	20	45.4
MAX40-30CA S-LEAD CELL	2	30	35.1	5	826.4	20	48.4
MAX40-33CA S-LEAD CELL	2	33	38.7	5	750.5	20	53.3
MAX40-36CA S-LEAD CELL	2	36	42.1	5	688.5	20	58.1
MAX40-40CA S-LEAD CELL	2	40	46.8	5	620.2	20	64.5

Stack 2 chip

$.373 \pm 0.006$

(9.4±0.1mm)



MAX 40 S-LEAD CELL Series Rating Characteristic Curves

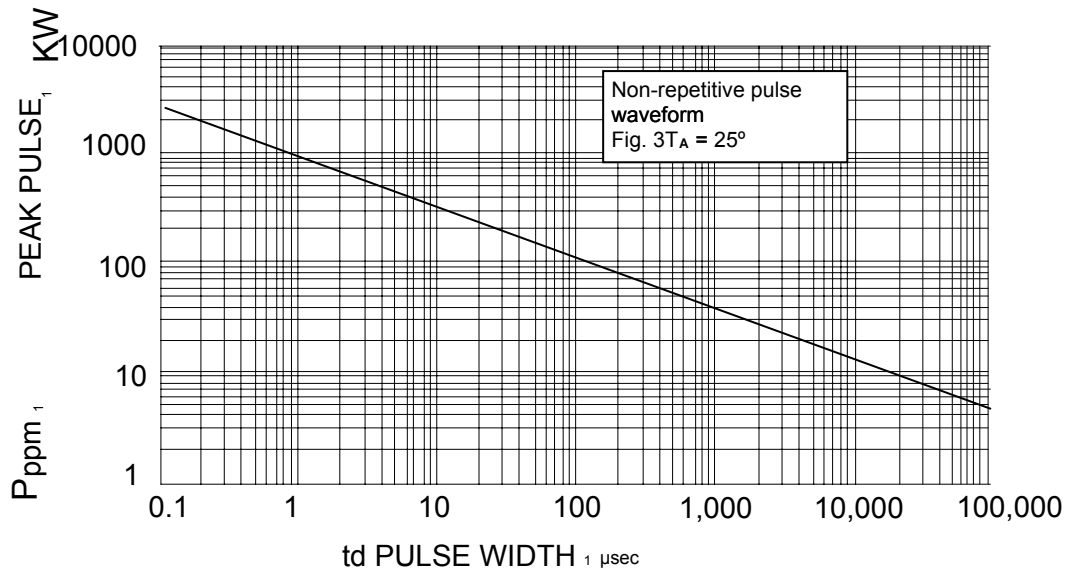


FIG. 1 PEAK PULSE POWER RATING

Fig.2 - Pulse Derating Curve

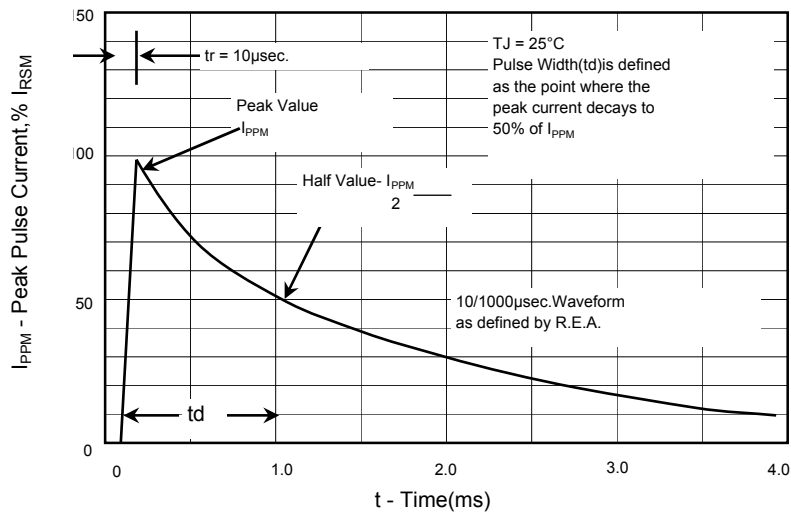
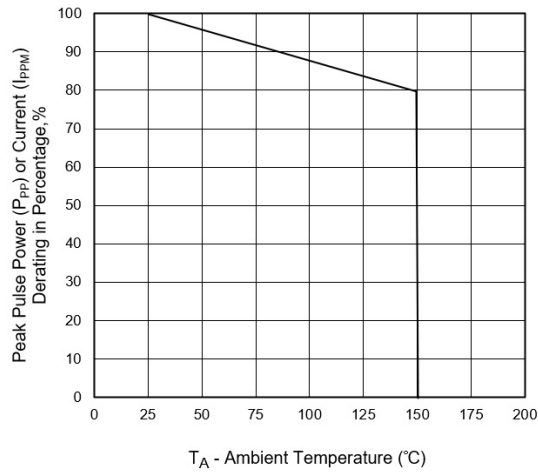


Fig.3 - Pulse Waveform