

# MDE Semiconductor, Inc.

201 Shipyard Way, Unit C, Newport Beach, CA U.S.A. 92663 Tel: 760-564-8656 • Fax: 760-564-2414

1-800-831-4881 Email: sales@mdesemiconductor.com Web: www.mdesemiconductor.com

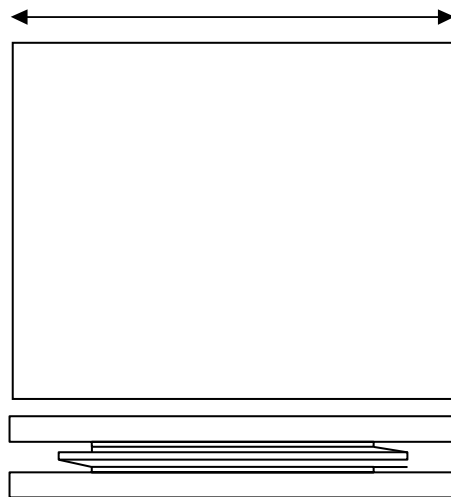
## MAX20KA Cell Series

### Surface Mount Power Transient Voltage Suppressor

Stand-off Voltage 16 to 66 Volts

#### FEATURES

- Glass passivated junction
- Bi-directional
- RoHS Compliant
- 20000A surge capability at 8 x 20µsec waveform (per IEC-61000-4-5)
- Excellent clamping capability
- Flammability Classification 94V-0
- Operating and storage Temp -40°C to +125°C



See Demensions on Page 2

#### MECHANICAL DATA

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

Mounting Position: Any

Weight: 8.0 ± 1g

#### DEVICES FOR BIPOLAR APPLICATIONS

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

#### MAXIMUM RATINGS AND CHARACTERISTICS

| PART NUMBER   | REVERSE STAND-OFF VOLTAGE $V_{RWM}(V)$ | BREAKDOWN VOLTAGE $V_{BR}(V)$ MIN. @ $I_T$ | BREAKDOWN VOLTAGE $V_{BR}(V)$ MAX. @ $I_T$ | TEST CURRENT $I_T$ (mA) | MAXIMUM CLAMPING VOLTAGE @ $I_{pp}$ Vc(V) |                              |                                 |                                | REVERSE LEAKAGE @ $V_{RWM}$ $I_R(\mu A)$ |
|---------------|--|--|--|-------------------------|---|------------------------------|---------------------------------|--------------------------------|--|
|               |  |  |  |                         | $V_{CL}$ (8/20 $\mu$ S) Volts             | $I_{pp}$ (8/20 $\mu$ S) Amps | $V_{CL}$ (10/350 $\mu$ S) Volts | $I_{pp}$ (10/350 $\mu$ S) Amps |  |
| MAX20KA-016CA | 16.0                                   | 17.50                                      | 19.30                                      | 10                      | 30  | 20,000                       | 28                              | 3,200                          | 5  |
| MAX20KA-022CA | 22.0                                   | 23.75                                      | 26.25                                      | 10                      | 42  | 20,000                       | 40                              | 3,200                          | 5  |
| MAX20KA-058CA | 58.0                                   | 64.00                                      | 70.00                                      | 10                      | 120                                       | 20,000                       | 107                             | 3,200                          | 5  |
| MAX20KA-063CA | 63.0                                   | 68.00                                      | 75.00                                      | 10                      | 125                                       | 20,000                       | 110                             | 3,200                          | 5  |
| MAX20KA-066CA | 66.0                                   | 72.00                                      | 80.00                                      | 10                      | 130                                       | 20,000                       | 120                             | 3,200                          | 5  |
| MAX20KA-136CA | 136.0                                  | 142.5                                      | 157.5                                      | 10                      | 260                                       | 20,000                       | 240                             | 3200                           | 5  |

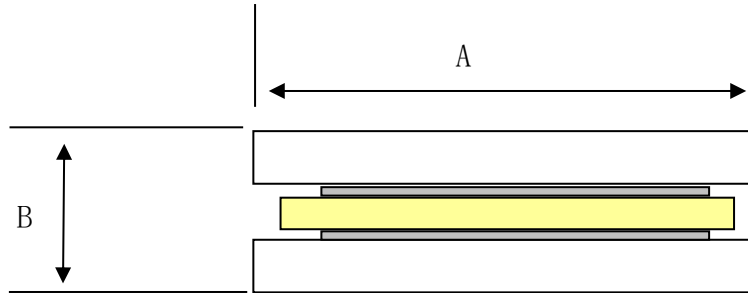
NOTE 1 : Using 8x20µS Wave shape defined in IEC 61000-4-5

# ***MDE Semiconductor, Inc.***

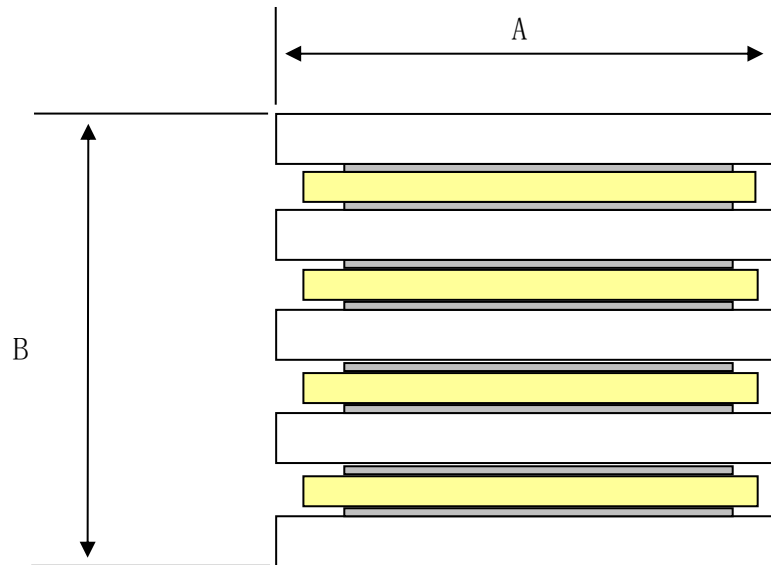
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## **MAX20KA Cell Series**

### **Cell Outline Dimensions**



| MAX20KA-016CA/022CA CELL | mm    |       | inch  |       |
|--------------------------|-------|-------|-------|-------|
| Dimension                | MIN   | MAX   | MIN   | MAX   |
| A                        | 12.80 | 13.20 | 0.504 | 0.520 |
| B                        | 1.30  | 1.50  | 0.051 | 0.059 |



| MAX20KA-058/063/066CA CELL | mm    |       | inch  |       |
|----------------------------|-------|-------|-------|-------|
| Dimension                  | MIN   | MAX   | MIN   | MAX   |
| A                          | 12.80 | 13.20 | 0.504 | 0.520 |
| B                          | 3.80  | 4.20  | 0.150 | 0.165 |

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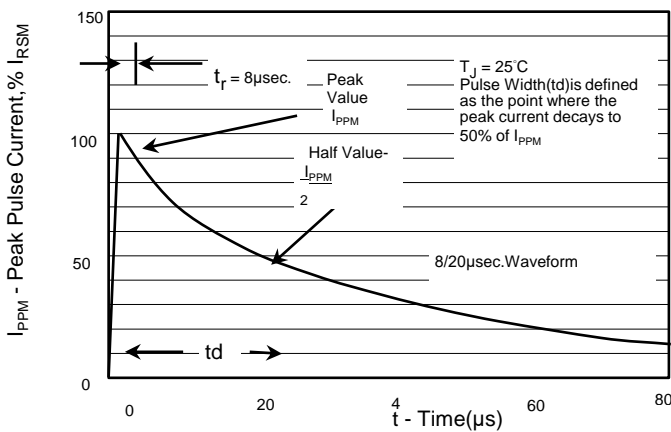
## MAX20KA Cell Series

### Surface Mount Power Transient Voltage Suppressor

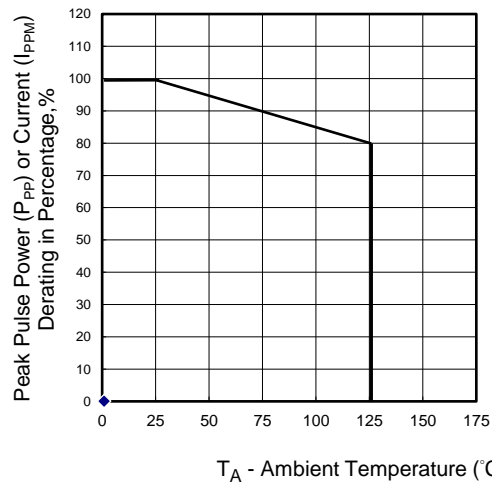
Stand-off Voltage 16 to 66 Volts

#### Ratings and Characteristic Curves (TA=25°C unless otherwise noted)

**Fig.1 - Test Pulse Waveform**



**Fig.2 - Pulse Derating Curve**



**Fig. 3 - Peak Pulse Power Rating Curve**

