

MDE Semiconductor, Inc.

查询"15KPA30CA"供应商 Unit 210, La Quinta, CA., USA 92253 Tel : 760-564-8656 • Fax : 760-564-2414
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15KPA SERIES

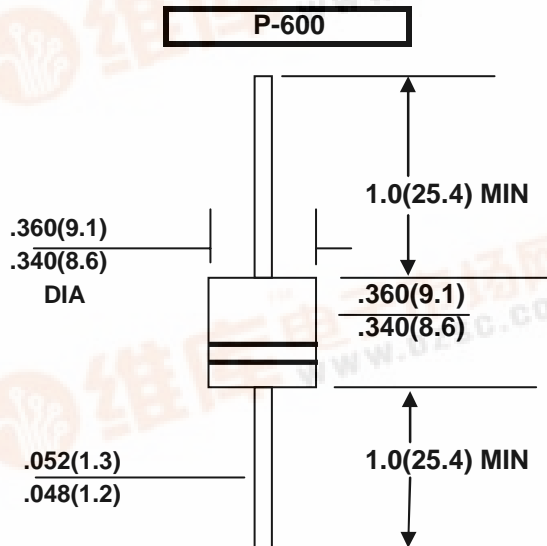
GLASS PASSIVATED JUNCTION TRANSIENT VOLTAGE SUPPRESSOR VOLTAGE-17.0 TO 280 Volts 15000 Watt Peak Pulse Power

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Glass passivated junction
- 15000W Peak Pulse Power capability on 10/1000 μ s waveform
- Excellent clamping capability
- Repetition rate (duty cycle):0.05%
- Low incremental surge resistance
- Fast response time: typically less than 1.0 ps from 0 volts to BV
- Typical Id less than 1 μ A above 10V
- High temperature soldering guaranteed: 265°C/10 seconds/.375", (9.5mm) lead length, 5lbs., (2.3kg) tension

MECHANICAL DATA

Case: Molded plastic over glass passivated junction
Terminals: Plated Axial leads, solderable per MIL-STD-750, Method 2026
Polarity: Color band denoted positive end (cathode) except Bipolar
Mounting Position: Any
Weight: 0.07 ounce, 2.1 gram



Dimensions in inches (millimeters)

DEVICES FOR BIPOLAR APPLICATIONS

For Bidirectional use C or CA Suffix for types 15KPA17 thru types 15KPA280
Electrical characteristics apply in both directions.

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 (NOTE 1) | P _{PPM} | Minimum 15000 | Watts |
| Peak Pulse Current of on 10-1000 μ s waveform (NOTE 1) | I _{PPM} | SEE TABLE 1 | Amps |
| Steady State Power Dissipation at Tl=75 °C Lead Lengths.375", (9.5mm)(NOTE 2) | P _{M(AV)} | 8.0 | Watts |
| Peak Forward Surge Current, 8.3ms Sine-Wave Superimposed on Rated Load, (JEDEC Method) (NOTE 3) | I _{FSM} | 400.0 | Amps |
| Operatings and Storage Temperature Range | T _J , T _{STG} | -55 to +175 | °C |

NOTES:

- 1.Non-repetitive current pulse, per Fig.3 and derated above Ta=25 °C per Fig.2.
- 2.Mounted on Copper Pad area of 0.8x0.8" (20x20mm) per Fig.5.
- 3.8.3ms single half sine-wave, or equivalent square wave, Duty cycle=4 pulses per minutes maximum

Certified RoHS Compliant

UL File # E223026

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15KPA Series Rating and Characteristics

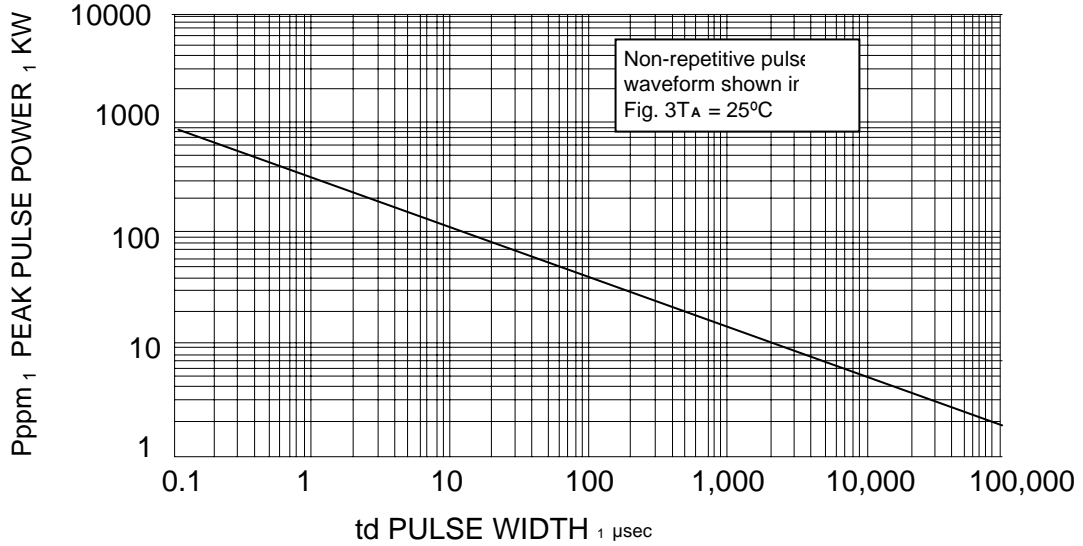


FIG. 1 PEAK PULSE POWER RATING

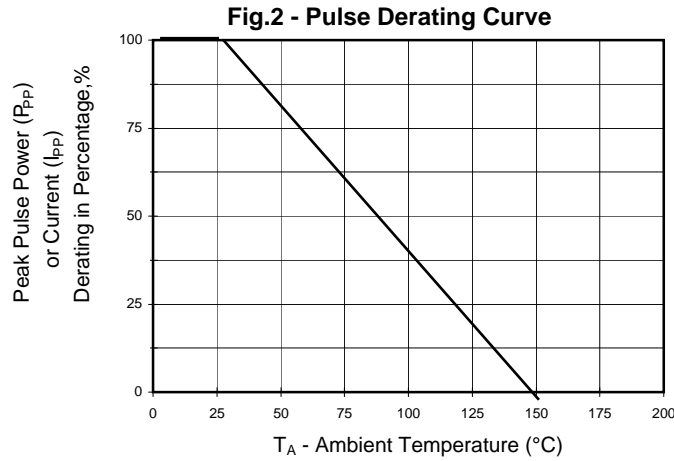
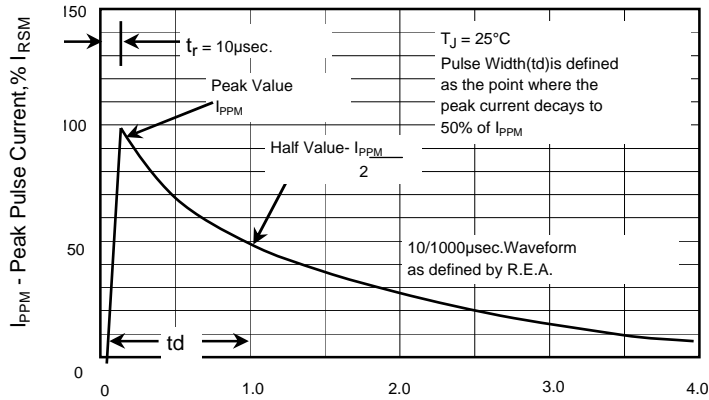


Fig.3 - Pulse Waveform



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15000 Watt TVS

| UNI-POLAR | BI-POLAR | REVERSE STANDOFF VOLTAGE V_{RWM} (V) | BREAKDOWN VOLTAGE V_{BR} (V) MIN. @ I_T | TEST CURRENT (I_T) mA | MAXIMUM CLAMPING VOLTAGE @ I_{PP} V_C (V) | PEAK PULSE CURRENT I_{PP} (A) | REVERSE LEAKAGE @ V_{RWM} I_R (μ A) |
|-----------|------------|---|--|------------------------------------|--|--|---|
| 15KPA17A | 15KPA17CA | 17 | 18.99 | 50 | 29.3 | 515.4 | 5000 |
| 15KPA18A | 15KPA18CA | 18 | 20.11 | 50 | 30.9 | 488.7 | 5000 |
| 15KPA20A | 15KPA20CA | 20 | 22.34 | 20 | 34.3 | 440.2 | 1500 |
| 15KPA22A | 15KPA22CA | 22 | 24.57 | 10 | 37.1 | 407.0 | 500 |
| 15KPA24A | 15KPA24CA | 24 | 26.81 | 5 | 40.7 | 371.0 | 150 |
| 15KPA26A | 15KPA26CA | 26 | 29.04 | 5 | 44.0 | 343.2 | 50 |
| 15KPA28A | 15KPA28CA | 28 | 31.28 | 5 | 47.5 | 317.9 | 25 |
| 15KPA30A | 15KPA30CA | 30 | 33.51 | 5 | 50.7 | 297.8 | 15 |
| 15KPA33A | 15KPA33CA | 33 | 36.90 | 5 | 54.7 | 276.1 | 10 |
| 15KPA36A | 15KPA36CA | 36 | 40.20 | 5 | 59.8 | 252.5 | 10 |
| 15KPA40A | 15KPA40CA | 40 | 44.70 | 5 | 65.8 | 229.5 | 10 |
| 15KPA43A | 15KPA43CA | 43 | 48.00 | 5 | 69.8 | 216.3 | 10 |
| 15KPA45A | 15KPA45CA | 45 | 50.30 | 5 | 72.8 | 207.4 | 10 |
| 15KPA48A | 15KPA48CA | 48 | 53.60 | 5 | 77.7 | 194.3 | 10 |
| 15KPA51A | 15KPA51CA | 51 | 57.00 | 5 | 82.8 | 182.1 | 10 |
| 15KPA54A | 15KPA54CA | 54 | 60.30 | 5 | 87.7 | 172.2 | 10 |
| 15KPA58A | 15KPA58CA | 58 | 64.80 | 5 | 93.8 | 161.0 | 10 |
| 15KPA60A | 15KPA60CA | 60 | 67.00 | 5 | 97.4 | 155.0 | 10 |
| 15KPA64A | 15KPA64CA | 64 | 71.50 | 5 | 104.2 | 144.9 | 10 |
| 15KPA70A | 15KPA70CA | 70 | 78.20 | 5 | 113.6 | 132.9 | 10 |
| 15KPA75A | 15KPA75CA | 75 | 83.80 | 5 | 122.0 | 123.8 | 10 |
| 15KPA78A | 15KPA78CA | 78 | 87.10 | 5 | 126.1 | 119.7 | 10 |
| 15KPA85A | 15KPA85CA | 85 | 94.90 | 5 | 137.6 | 109.7 | 10 |
| 15KPA90A | 15KPA90CA | 90 | 100.50 | 5 | 145.6 | 103.7 | 10 |
| 15KPA100A | 15KPA100CA | 100 | 111.70 | 5 | 161.3 | 93.6 | 10 |
| 15KPA110A | 15KPA110CA | 110 | 122.90 | 5 | 178.6 | 84.5 | 10 |
| 15KPA120A | 15KPA120CA | 120 | 134.00 | 5 | 192.3 | 78.5 | 10 |
| 15KPA130A | 15KPA130CA | 130 | 145.20 | 5 | 208.3 | 72.5 | 10 |
| 15KPA150A | 15KPA150CA | 150 | 167.60 | 5 | 241.9 | 62.4 | 10 |
| 15KPA160A | 15KPA160CA | 160 | 178.70 | 5 | 258.6 | 58.4 | 10 |
| 15KPA170A | 15KPA170CA | 170 | 189.90 | 5 | 272.7 | 55.4 | 10 |
| 15KPA180A | 15KPA180CA | 180 | 201.10 | 5 | 288.5 | 52.3 | 10 |
| 15KPA200A | 15KPA200CA | 200 | 223.40 | 5 | 319.1 | 47.3 | 10 |
| 15KPA220A | 15KPA220CA | 220 | 245.70 | 5 | 428.6 | 35.2 | 10 |
| 15KPA240A | 15KPA240CA | 240 | 268.10 | 5 | 384.6 | 39.3 | 10 |
| 15KPA260A | 15KPA260CA | 260 | 290.40 | 5 | 416.7 | 36.2 | 10 |
| 15KPA280A | 15KPA280CA | 280 | 312.80 | 5 | 454.5 | 33.2 | 10 |

For bidirectional type having V_{RWM} of 40 volts and less, the I_R limit is double.

For parts without A , the V_{BR} is $\pm 10\%$

Certified RoHS Compliant
UL File # E223026