



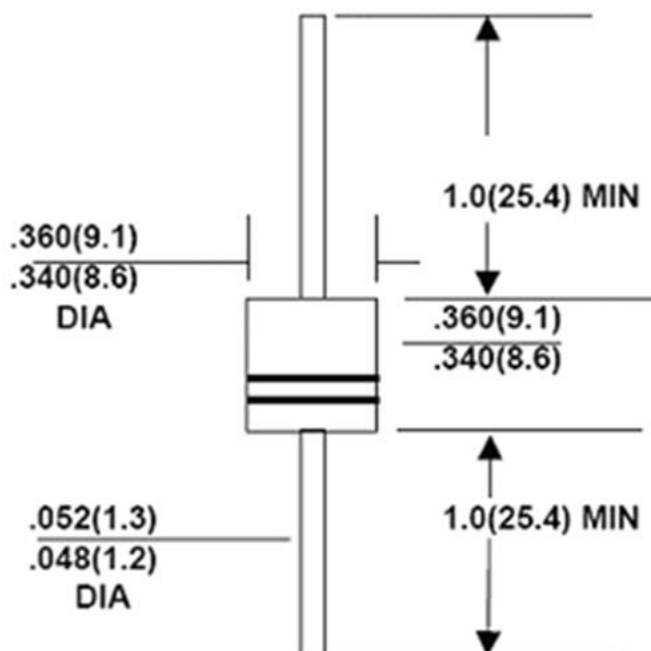
**Features:**

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- Glass Passivated Junction
- 15000W Peak Pulse Power Capability on 10/1000  $\mu$ s waveform
- Voltage-17.0 to 280 Volts
- 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
- High temperature soldering guaranteed: 265°C/10 seconds/.375", (9.5mm) lead length, 5lbs., (2.3kg) tension
- This is a Pb - Free Device
- All SMC Parts are Traceable to the Wafer Lot
- Additional testing can be offered upon request

**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:0.064 grams(approx.)

**Mechanical Dimensions: In Inches (mm)**



**P-600**

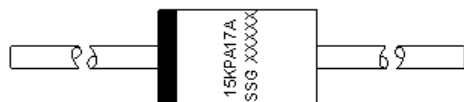


**15KPA SERIES**  
**GLASS PASSIVATED TRANSIENT VOLTAGE SUPPRESSOR**

**Technical Data**  
**Data Sheet N0215, Rev. D**

**Green Products**

**MARKING DIAGRAM**



Where XXXXX is YYWWL

15KPA17A = Part Name  
SSG = SSG  
YY = Year  
WW = Week  
L = Lot Number

**Cautions:** Molding resin  
Epoxy resin UL:94V-0

**Ordering Information:**

| Device       | Package        | Shipping      |
|--------------|----------------|---------------|
| 15KPAxxxXX   | P-600(Pb-Free) | 300pcs / box  |
| 15KPAxxxXXTR | P-600(Pb-Free) | 800pcs / reel |

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specification.

**Maximum Ratings and Electrical Characteristics** @T<sub>A</sub>=25°C unless otherwise specified

| Parameter                                                                                      | Symbol                            | Value       | Unit |
|------------------------------------------------------------------------------------------------|-----------------------------------|-------------|------|
| Peak Pulse Power Dissipation on 10x1000μs Waveform(Note 1)                                     | P <sub>PPM</sub>                  | 15000       | W    |
| Peak Pulse Current on 10x1000μs Waveform(Note 1)                                               | I <sub>PPM</sub>                  | See Table 1 | A    |
| Steady State Power Dissipation at T <sub>L</sub> =75°C Lead Lengths .375", (9.5mm)(Note 2)     | P <sub>M(AV)</sub>                | 8.0         | W    |
| Peak Forward Surge Current, 8.3ms Sine-Wave Superimposed on Rated Load, (JEDEC Method)(Note 3) | I <sub>FSM</sub>                  | 400.0       | A    |
| Operating Junction and Storage Temperature Range                                               | T <sub>J</sub> , T <sub>STG</sub> | -55 to 175  | °C   |

**Notes:** 1. Non-repetitive current pulse, per Fig. 3 and derated above T<sub>A</sub> = 25°C per Fig. 2.  
2. Mounted on copper pad area of 0.8" × 0.8" (20 × 20mm)  
3. 8.3ms single half sine wave, or equivalent square, duty cycle=4 pulses per minute maximum.



# 15KPA SERIES

## GLASS PASSIVATED TRANSIENT VOLTAGE SUPPRESSOR

### Technical Data

Data Sheet N0215, Rev. D

15000 Watt TVS

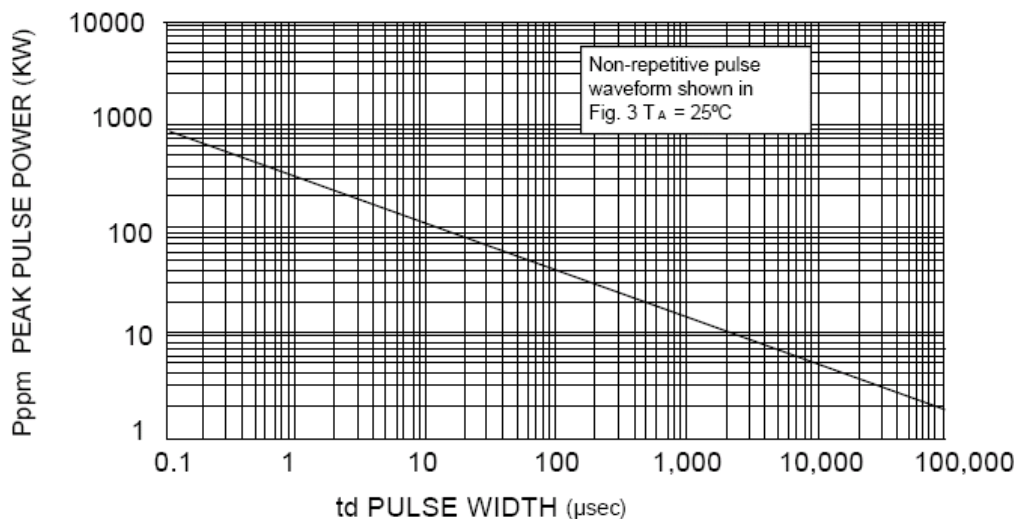
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| UNI-POLAR | BI-POLAR   | REVERSE<br>STANDOFF<br>VOLTAGE<br>$V_{RWM}$ (V) | BREAKDOWN<br>VOLTAGE<br>$V_{BR}$ (V)<br>MIN. @ $I_T$ | BREAKDOWN<br>VOLTAGE<br>$V_{BR}$ (V)<br>MAX. @ $I_T$ | TEST<br>CURRENT<br>( $I_T$ )<br>mA | MAXIMUM<br>CLAMPING<br>VOLTAGE<br>@ $I_{PP}$ $V_C$ (V) | PEAK<br>PULSE<br>CURRENT $I_{PP}$<br>(A) | REVERSE<br>LEAKAGE<br>@ $V_{RWM}$ $I_R$<br>( $\mu A$ ) |
|-----------|------------|-------------------------------------------------|------------------------------------------------------|------------------------------------------------------|------------------------------------|--------------------------------------------------------|------------------------------------------|--------------------------------------------------------|
| 15KPA17A  | 15KPA17CA  | 17                                              | 18.99                                                | 20.79                                                | 50                                 | 29.3                                                   | 515.4                                    | 5000                                                   |
| 15KPA18A  | 15KPA18CA  | 18                                              | 20.11                                                | 22.01                                                | 50                                 | 30.9                                                   | 488.7                                    | 5000                                                   |
| 15KPA20A  | 15KPA20CA  | 20                                              | 22.34                                                | 24.46                                                | 20                                 | 34.3                                                   | 440.2                                    | 1500                                                   |
| 15KPA22A  | 15KPA22CA  | 22                                              | 24.57                                                | 26.91                                                | 10                                 | 37.1                                                   | 407.0                                    | 500                                                    |
| 15KPA24A  | 15KPA24CA  | 24                                              | 26.81                                                | 29.35                                                | 5                                  | 40.7                                                   | 371.0                                    | 150                                                    |
| 15KPA26A  | 15KPA26CA  | 26                                              | 29.04                                                | 31.80                                                | 5                                  | 44.0                                                   | 343.2                                    | 50                                                     |
| 15KPA28A  | 15KPA28CA  | 28                                              | 31.28                                                | 34.24                                                | 5                                  | 47.5                                                   | 317.9                                    | 25                                                     |
| 15KPA30A  | 15KPA30CA  | 30                                              | 33.51                                                | 36.70                                                | 5                                  | 50.7                                                   | 297.8                                    | 15                                                     |
| 15KPA33A  | 15KPA33CA  | 33                                              | 36.90                                                | 40.40                                                | 5                                  | 54.7                                                   | 276.1                                    | 2                                                      |
| 15KPA36A  | 15KPA36CA  | 36                                              | 40.20                                                | 44.00                                                | 5                                  | 59.8                                                   | 252.5                                    | 2                                                      |
| 15KPA40A  | 15KPA40CA  | 40                                              | 44.70                                                | 48.90                                                | 5                                  | 65.8                                                   | 229.5                                    | 2                                                      |
| 15KPA43A  | 15KPA43CA  | 43                                              | 48.00                                                | 52.60                                                | 5                                  | 69.8                                                   | 216.3                                    | 2                                                      |
| 15KPA45A  | 15KPA45CA  | 45                                              | 50.30                                                | 55.00                                                | 5                                  | 72.8                                                   | 207.4                                    | 2                                                      |
| 15KPA48A  | 15KPA48CA  | 48                                              | 53.60                                                | 58.70                                                | 5                                  | 77.7                                                   | 194.3                                    | 2                                                      |
| 15KPA51A  | 15KPA51CA  | 51                                              | 57.00                                                | 62.40                                                | 5                                  | 82.8                                                   | 182.1                                    | 2                                                      |
| 15KPA54A  | 15KPA54CA  | 54                                              | 60.30                                                | 66.00                                                | 5                                  | 87.7                                                   | 172.2                                    | 2                                                      |
| 15KPA58A  | 15KPA58CA  | 58                                              | 64.80                                                | 70.90                                                | 5                                  | 93.8                                                   | 161.0                                    | 2                                                      |
| 15KPA60A  | 15KPA60CA  | 60                                              | 67.00                                                | 73.40                                                | 5                                  | 97.4                                                   | 155.0                                    | 2                                                      |
| 15KPA64A  | 15KPA64CA  | 64                                              | 71.50                                                | 78.30                                                | 5                                  | 104.2                                                  | 144.9                                    | 2                                                      |
| 15KPA70A  | 15KPA70CA  | 70                                              | 78.20                                                | 85.60                                                | 5                                  | 113.6                                                  | 132.9                                    | 2                                                      |
| 15KPA75A  | 15KPA75CA  | 75                                              | 83.80                                                | 91.70                                                | 5                                  | 122.0                                                  | 123.8                                    | 2                                                      |
| 15KPA78A  | 15KPA78CA  | 78                                              | 87.10                                                | 95.40                                                | 5                                  | 126.1                                                  | 119.7                                    | 2                                                      |
| 15KPA85A  | 15KPA85CA  | 85                                              | 94.90                                                | 104.00                                               | 5                                  | 137.6                                                  | 109.7                                    | 2                                                      |
| 15KPA90A  | 15KPA90CA  | 90                                              | 100.50                                               | 110.10                                               | 5                                  | 145.6                                                  | 103.7                                    | 2                                                      |
| 15KPA100A | 15KPA100CA | 100                                             | 111.70                                               | 122.30                                               | 5                                  | 161.3                                                  | 93.6                                     | 2                                                      |
| 15KPA110A | 15KPA110CA | 110                                             | 122.90                                               | 134.50                                               | 5                                  | 178.6                                                  | 84.5                                     | 2                                                      |
| 15KPA120A | 15KPA120CA | 120                                             | 134.00                                               | 146.80                                               | 5                                  | 192.3                                                  | 78.5                                     | 2                                                      |
| 15KPA130A | 15KPA130CA | 130                                             | 145.20                                               | 159.00                                               | 5                                  | 208.3                                                  | 72.5                                     | 2                                                      |
| 15KPA150A | 15KPA150CA | 150                                             | 167.60                                               | 183.50                                               | 5                                  | 241.9                                                  | 62.4                                     | 2                                                      |
| 15KPA160A | 15KPA160CA | 160                                             | 178.70                                               | 195.70                                               | 5                                  | 258.6                                                  | 58.4                                     | 2                                                      |
| 15KPA170A | 15KPA170CA | 170                                             | 189.90                                               | 207.90                                               | 5                                  | 272.7                                                  | 55.4                                     | 2                                                      |
| 15KPA180A | 15KPA180CA | 180                                             | 201.10                                               | 220.10                                               | 5                                  | 288.5                                                  | 52.3                                     | 2                                                      |
| 15KPA200A | 15KPA200CA | 200                                             | 223.40                                               | 244.60                                               | 5                                  | 319.1                                                  | 47.3                                     | 2                                                      |
| 15KPA220A | 15KPA220CA | 220                                             | 245.70                                               | 269.10                                               | 5                                  | 428.6                                                  | 35.2                                     | 2                                                      |
| 15KPA240A | 15KPA240CA | 240                                             | 268.10                                               | 293.50                                               | 5                                  | 384.6                                                  | 39.3                                     | 2                                                      |
| 15KPA260A | 15KPA260CA | 260                                             | 290.40                                               | 318.00                                               | 5                                  | 416.7                                                  | 36.2                                     | 2                                                      |
| 15KPA280A | 15KPA280CA | 280                                             | 312.80                                               | 342.40                                               | 5                                  | 454.5                                                  | 33.2                                     | 2                                                      |

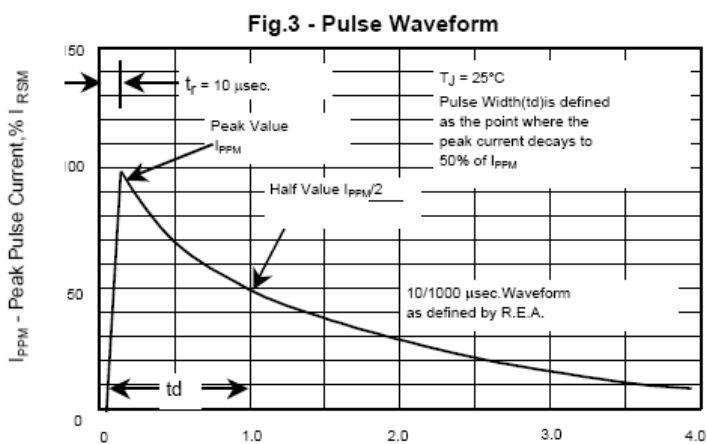
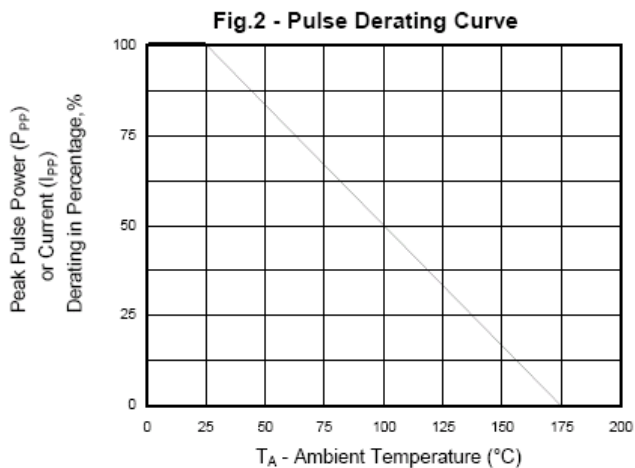
For bidirectional type having  $V_{RWM}$  of 30 volts and less, the  $I_R$  limit is double.

For parts without A, the  $V_{BR}$  is + 10% and  $V_C$  is 5% higher than with A parts

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**FIG. 1 PEAK PULSE POWER RATING**





**Technical Data**  
**Data Sheet N0215, Rev. D**

***Green Products***

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