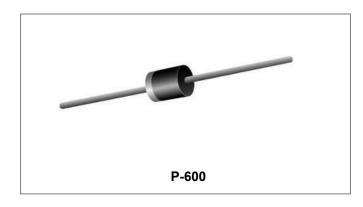






15KPA SERIES GLASS PASSIVATED TRANSIENT VOLTAGE SUPPRESSOR



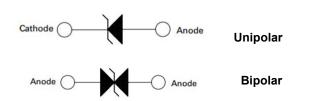
Mechanical Data

- 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: 2.1 grams (approx.)

Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- Glass Passivated Junction
- 15000W Peak Pulse Power Capability on 10/1000 μs 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 volts to BV
- High temperature soldering guaranteed: 265℃/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

Circuit Diagram



Maximum Ratings and Thermal Characteristics@TA=25°C unless otherwise specified

| Parameter | Symbol | Value | Unit |
|--|------------------|------------|------|
| Peak Pulse Power Dissipation on 10x1000µs Waveform(Note 1) | P _{PPM} | 15000 | W |
| Steady State Power Dissipation at T _L =75°C Lead Lengths .375", (9.5mm)(Note 2) | $P_{M(AV)}$ | 8.0 | W |
| Peak Forward Surge Current, 8.3ms Sine-Wave Superimposed on Rated Load, (JEDEC Method)(Note 3) | I _{FSM} | 400.0 | А |
| Typical Thermal Resistance Junction to Lead | $R_{	heta JL}$ | 8.0 | °C/W |
| Typical Thermal Resistance Junction to Ambient | R _{θJA} | 40 | °C/W |
| Operating Junction and Storage Temperature Range | T_{J}, T_{STG} | -55 to 175 | °C |

Notes: 1. Non-repetitive current pulse, per Fig. 3 and derated above T_A = 25°C per Fig. 2.

- 2. Mounted on copper pad area of $0.8" \times 0.8"$ (20 \times 20mm)
- 3. 8.3ms single half sine wave, or equivalent square, duty cycle=4 pulses per minute maximum.
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Electrical Characteristics @T_A=25°C unless otherwise specified

| UNI-POLAR | BI-POLAR | REVERSE STAND-OFF VOLTAGE V _{RWM} (V) | BREAKDOWN VOLTAGE V _{BR} (V) MIN. @I _T | BREAKDOWN VOLTAGE V _{BR} (V) MAX. @I _T | TEST CURRE NT I _T (MA) | MAXMUM CLAMPING VOLTAGE @IPP Vc(V) | PEAK PULSE CURRENT IPP(A) | REVERSE LEAKAGE @V _{RWM} I _R (uA) |
|-----------|------------|---|---|---|--|--|---------------------------|--|
| 15KPA17A | 15KPA17CA | 17 | 18.99 | 20.79 | 50 | 29.3 | 515.4 | 5000 |
| 15KPA18A | 15KPA18CA | 18 | 20.11 | 20.01 | 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 | 500 |
| 15KPA24A | 15KPA24CA | 24 | 26.81 | 29.35 | 5 | 40.7 | 371 | 150 |
| 15KPA26A | 15KPA26CA | 26 | 29.04 | 31.8 | 5 | 44 | 343.2 | 50 |
| 15KPA28A | 15KPA28CA | 28 | 31.28 | 34.24 | 5 | 47.5 | 317.9 | 25 |
| 15KPA30A | 15KPA30CA | 30 | 33.51 | 36.7 | 5 | 50.7 | 297.8 | 15 |
| 15KPA33A | 15KPA33CA | 33 | 36.9 | 40.4 | 5 | 54.7 | 276.1 | 2 |
| 15KPA36A | 15KPA36CA | 36 | 40.2 | 44 | 5 | 59.8 | 252.5 | 2 |
| 15KPA40A | 15KPA40CA | 40 | 44.7 | 48.90 | 5 | 65.8 | 229.5 | 2 |
| 15KPA43A | 15KPA43CA | 43 | 48 | 52.6 | 5 | 69.8 | 216.3 | 2 |
| 15KPA45A | 15KPA45CA | 45 | 50.3 | 55 | 5 | 72.8 | 207.4 | 2 |
| 15KPA48A | 15KPA48CA | 48 | 53.6 | 58.7 | 5 | 77.7 | 194.3 | 2 |
| 15KPA51A | 15KPA51CA | 51 | 57 | 62.4 | 5 | 82.8 | 182.1 | 2 |
| 15KPA54A | 15KPA54CA | 54 | 60.3 | 66 | 5 | 87.7 | 172.2 | 2 |
| 15KPA58A | 15KPA58CA | 58 | 64.8 | 70.9 | 5 | 93.8 | 161 | 2 |
| 15KPA60A | 15KPA60CA | 60 | 67 | 73.4 | 5 | 97.4 | 155 | 2 |
| 15KPA64A | 15KPA64CA | 64 | 71.5 | 78.3 | 5 | 104.2 | 144.9 | 2 |
| 15KPA70A | 15KPA70CA | 70 | 78.2 | 85.6 | 5 | 113.6 | 132.9 | 2 |
| 15KPA75A | 15KPA75CA | 75 | 83.8 | 91.7 | 5 | 122 | 123.8 | 2 |
| 15KPA78A | 15KPA78CA | 78 | 87.1 | 95.4 | 5 | 126.1 | 119.7 | 2 |
| 15KPA85A | 15KPA85CA | 85 | 94.9 | 104 | 5 | 137.6 | 109.7 | 2 |
| 15KPA90A | 15KPA90CA | 90 | 100.5 | 110.1 | 5 | 145.6 | 103.7 | 2 |
| 15KPA100A | 15KPA100CA | 100 | 111.7 | 122.3 | 5 | 161.3 | 93.6 | 2 |
| 15KPA110A | 15KPA110CA | 110 | 122.9 | 134.5 | 5 | 178.6 | 84.5 | 2 |
| 15KPA120A | 15KPA120CA | 120 | 134 | 146.8 | 5 | 192.3 | 78.5 | 2 |
| 15KPA130A | 15KPA130CA | 130 | 145.2 | 159 | 5 | 208.3 | 72.5 | 2 |
| 15KPA150A | 15KPA150CA | 150 | 167.6 | 183.5 | 5 | 241.9 | 62.4 | 2 |
| 15KPA160A | 15KPA160CA | 160 | 178.7 | 195.7 | 5 | 258.6 | 58.4 | 2 |
| 15KPA170A | 15KPA170CA | 170 | 189.9 | 207.9 | 5 | 272.7 | 55.4 | 2 |
| 15KPA180A | 15KPA180CA | 180 | 201.1 | 220.1 | 5 | 288.5 | 52.3 | 2 |
| 15KPA200A | 15KPA200CA | 200 | 223.4 | 244.6 | 5 | 319.1 | 47.3 | 2 |
| 15KPA220A | 15KPA220CA | 220 | 245.7 | 269.1 | 5 | 356 | 42 | 2 |
| 15KPA240A | 15KPA240CA | 240 | 268.1 | 293.5 | 5 | 384.6 | 39.3 | 2 |
| 15KPA260A | 15KPA260CA | 260 | 290.4 | 318 | 5 | 416.7 | 36.2 | 2 |
| 15KPA280A | 15KPA280CA | 280 | 312.8 | 342.4 | 5 | 454.5 | 33.2 | 2 |

For bidirectional type having VRWM of 30 volts and less, the IR limit is double. For parts without A, the VBR is + 10% and Vc is 5% higher than with A parts

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Ratings and Characteristics Curves

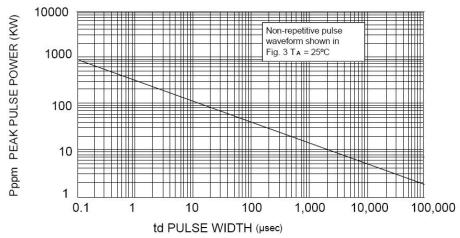


FIG. 1 PEAK PULSE POWER RATING

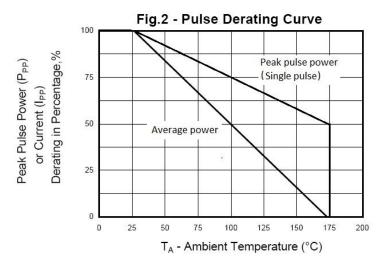
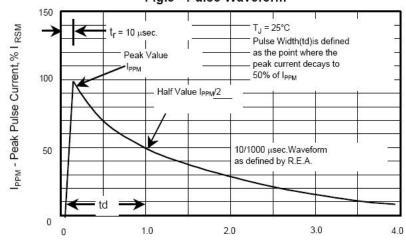


Fig.3 - Pulse Waveform



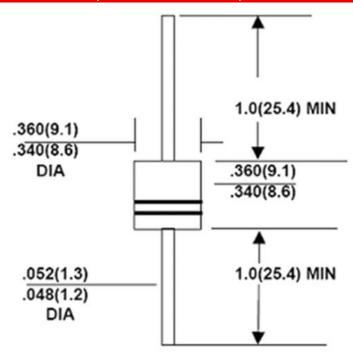
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Mechanical Dimensions P-600(Inches/Millimeters)

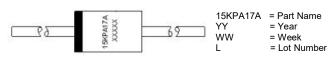


Ordering Information

| Device | Package | Shipping | |
|-----------------|----------------|---------------|--|
| 15KPA Series | P-600(Pb-Free) | 300pcs / tape | |
| 15KPA Series TA | P-600(Pb-Free) | 300pcs / tape | |
| 15KPA Series TR | 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.

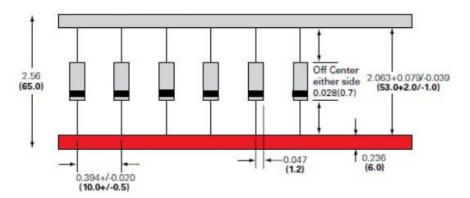
Marking Diagram



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

Where XXXXX is YYWWL

Carrier Tape Specification P-600



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