

## P4SMAJ Series — 400 Watt Surface Mount

### P4SMAJ Series Features

- 400 watt peak pulse power dissipation
- Available in voltages from 5.0V to 170V
- Unidirectional and bidirectional
- Glass passivated junction
- Low clamping factor
- Available in tape and reel (Reel quantity = 5,000 pieces)
- Each device 100% surge tested
- Tape and Reel to EIA Standard RS-481-A

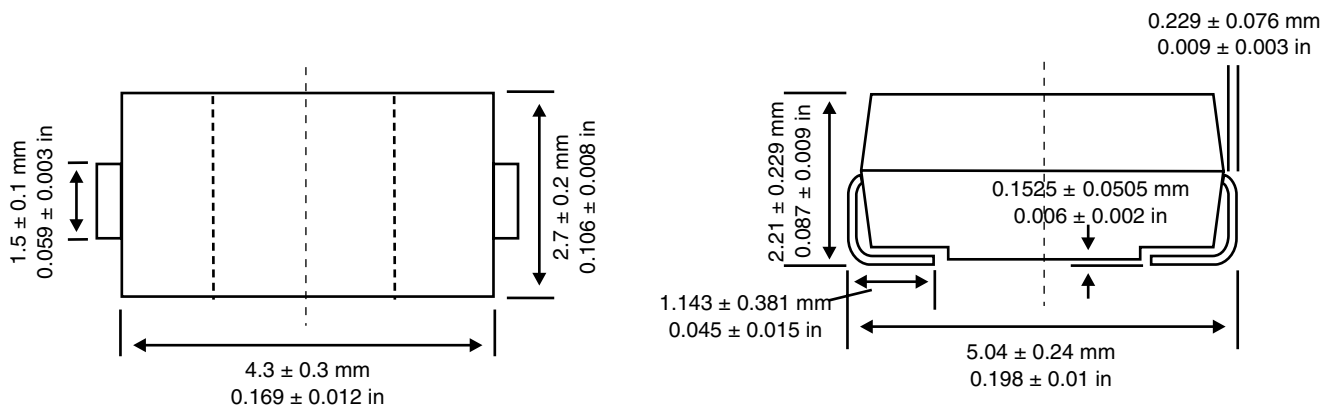
### Absolute Maximum Ratings

| Parameter                                   | Value            |
|---|------------------|
| Peak pulse power dissipation (PPPM) at 25°C | 400W             |
| Operating and storage temperatures          | -55°C to + 150°C |

### Mechanical Characteristics

- DO214AC package
- UL94V-0 Thermoset Epoxy
- Solder plated terminals
- Solderable per MIL-STD-750 Method 2026

### Mechanical Dimensions



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**Electrical Characteristics**

| Part Number* | Uni Part Marking | Bi Part Marking | Rated Standoff Voltage V <sub>WM</sub><br>(Volts) | Breakdown Voltage              |                         | Maximum Stand By Current @V <sub>WM</sub> + I <sub>D</sub><br>(µA) | 10/1000µs Maximum Clamping Voltage @I <sub>PPM</sub> # V <sub>C</sub> Max<br>(Volts) | 10/1000µs Rated Peak Impulse Current I <sub>PPM</sub> #<br>(Amperes) |
|--------------|------------------|-----------------|---|--------------------------------|-------------------------|--|--|--|
|              |                  |                 |   | V <sub>BR</sub> Min<br>(Volts) | @I <sub>T</sub><br>(mA) |  |  |  |
|              |                  |                 |   |                                |                         |  |  |  |
| P4SMAJ5.0    | HD               | TD              | 5.0   | 6.40                           | 10                      | 800.0  | 9.6  | 41.6   |
| P4SMAJ5.0A   | HE               | TE              | 5.0   | 6.40                           | 10                      | 800.0  | 9.2  | 43.5   |
| P4SMAJ6.0    | HF               | TF              | 6.0   | 6.67                           | 10                      | 800.0  | 11.4   | 35.1   |
| P4SMAJ6.0A   | HG               | TG              | 6.0   | 6.67                           | 10                      | 800.0  | 10.3   | 38.8   |
| P4SMAJ6.5    | HH               | TH              | 6.5   | 7.22                           | 10                      | 500.0  | 12.3   | 32.5   |
| P4SMAJ6.5A   | HK               | TK              | 6.5   | 7.22                           | 10                      | 500.0  | 11.2   | 35.7   |
| P4SMAJ7.0    | HL               | TL              | 7.0   | 7.78                           | 10                      | 200.0  | 13.3   | 30.1   |
| P4SMAJ7.0A   | HM               | TM              | 7.0   | 7.78                           | 10                      | 200.0  | 12.0   | 33.3   |
| P4SMAJ7.5    | HN               | TN              | 7.5   | 8.33                           | 1                       | 100.0  | 14.3   | 28.0   |
| P4SMAJ7.5A   | HP               | TP              | 7.5   | 8.33                           | 1                       | 100.0  | 12.9   | 31.0   |
| P4SMAJ8.0    | HQ               | TQ              | 8.0   | 8.89                           | 1                       | 50.0   | 15.0   | 26.5   |
| P4SMAJ8.0A   | HR               | TR              | 8.0   | 8.89                           | 1                       | 50.0   | 13.6   | 29.4   |
| P4SMAJ8.5    | HS               | TS              | 8.5   | 9.44                           | 1                       | 10.0   | 15.9   | 25.1   |
| P4SMAJ8.5A   | HT               | TT              | 8.5   | 9.44                           | 1                       | 10.0   | 14.4   | 27.7   |
| P4SMAJ9.0    | HU               | TU              | 9.0   | 10.00                          | 1                       | 5.0  | 16.9   | 23.6   |
| P4SMAJ9.0A   | HV               | TV              | 9.0   | 10.00                          | 1                       | 5.0  | 15.4   | 26.0   |
| P4SMAJ10     | HW               | TW              | 10.0  | 11.10                          | 1                       | 5.0  | 18.8   | 21.2   |
| P4SMAJ10A    | HX               | TX              | 10.0  | 11.10                          | 1                       | 5.0  | 17.0   | 23.5   |
| P4SMAJ11     | HY               | TY              | 11.0  | 12.20                          | 1                       | 5.0  | 20.1   | 20.0   |
| P4SMAJ11A    | HZ               | TZ              | 11.0  | 12.20                          | 1                       | 5.0  | 18.2   | 22.0   |
| P4SMAJ12     | ID               | UD              | 12.0  | 13.30                          | 1                       | 5.0  | 22.0   | 18.1   |
| P4SMAJ12A    | IE               | UE              | 12.0  | 13.30                          | 1                       | 5.0  | 19.9   | 20.1   |
| P4SMAJ13     | IF               | UF              | 13.0  | 14.40                          | 1                       | 5.0  | 23.8   | 16.8   |
| P4SMAJ13A    | IG               | UG              | 13.0  | 14.40                          | 1                       | 5.0  | 21.5   | 18.6   |
| P4SMAJ14     | IH               | UH              | 14.0  | 15.60                          | 1                       | 5.0  | 25.8   | 15.5   |
| P4SMAJ14A    | IK               | UK              | 14.0  | 15.60                          | 1                       | 5.0  | 23.2   | 17.2   |

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 For Pb-Free add suffix – "F"

**P4SMAJ Series — 400 Watt Surface Mount**

**Electrical Characteristics (continued)**

| Part Number* | Uni Part Marking | Bi Part Marking | Rated Standoff Voltage V <sub>WM</sub><br>(Volts) | Breakdown Voltage              |                         | Maximum Stand By Current @V <sub>WM</sub> + I <sub>D</sub><br>(µA) | 10/1000µs Maximum Clamping Voltage @I <sub>PPM</sub> #<br>V <sub>C</sub> Max<br>(Volts) | 10/1000µs Rated Peak Impulse Current I <sub>PPM</sub> #<br>(Amperes) |
|--------------|------------------|-----------------|---|--------------------------------|-------------------------|--|---|--|
|              |                  |                 |   | V <sub>BR</sub> Min<br>(Volts) | @I <sub>T</sub><br>(mA) |  |   |  |
|              |                  |                 |   |                                |                         |  |   |  |
| P4SMAJ15     | IL               | UL              | 15.0  | 16.70                          | 1                       | 5.0  | 26.9  | 14.8   |
| P4SMAJ15A    | IM               | UM              | 15.0  | 16.70                          | 1                       | 5.0  | 24.4  | 16.4   |
| P4SMAJ16     | IN               | UN              | 16.0  | 17.80                          | 1                       | 5.0  | 28.8  | 13.8   |
| P4SMAJ16A    | IP               | UP              | 16.0  | 17.80                          | 1                       | 5.0  | 26.0  | 15.3   |
| P4SMAJ17     | IQ               | UQ              | 17.0  | 18.90                          | 1                       | 5.0  | 30.5  | 13.1   |
| P4SMAJ17A    | IR               | UR              | 17.0  | 18.90                          | 1                       | 5.0  | 27.6  | 14.5   |
| P4SMAJ18     | IS               | US              | 18.0  | 20.00                          | 1                       | 5.0  | 32.2  | 12.4   |
| P4SMAJ18A    | IT               | UT              | 18.0  | 20.00                          | 1                       | 5.0  | 29.2  | 13.7   |
| P4SMAJ20     | IU               | UU              | 20.0  | 22.20                          | 1                       | 5.0  | 35.8  | 11.1   |
| P4SMAJ20A    | IV               | UV              | 20.0  | 22.20                          | 1                       | 5.0  | 32.4  | 12.3   |
| P4SMAJ22     | IW               | UW              | 22.0  | 24.40                          | 1                       | 5.0  | 39.4  | 10.1   |
| P4SMAJ22A    | IX               | UX              | 22.0  | 24.40                          | 1                       | 5.0  | 35.5  | 11.2   |
| P4SMAJ24     | IY               | UY              | 24.0  | 26.70                          | 1                       | 5.0  | 43.0  | 9.3  |
| P4SMAJ24A    | IZ               | UZ              | 24.0  | 26.70                          | 1                       | 5.0  | 38.9  | 10.3   |
| P4SMAJ26     | JD               | VD              | 26.0  | 28.90                          | 1                       | 5.0  | 46.6  | 8.6  |
| P4SMAJ26A    | JE               | VE              | 26.0  | 28.90                          | 1                       | 5.0  | 42.1  | 9.5  |
| P4SMAJ28     | JF               | VF              | 28.0  | 31.10                          | 1                       | 5.0  | 50.0  | 8.0  |
| P4SMAJ28A    | JG               | VG              | 28.0  | 31.10                          | 1                       | 5.0  | 45.4  | 8.8  |
| P4SMAJ30     | JH               | VH              | 30.0  | 33.30                          | 1                       | 5.0  | 53.5  | 7.5  |
| P4SMAJ30A    | JK               | VK              | 30.0  | 33.30                          | 1                       | 5.0  | 48.4  | 8.3  |
| P4SMAJ33     | JL               | VL              | 33.0  | 36.70                          | 1                       | 5.0  | 59.0  | 6.8  |
| P4SMAJ33A    | JM               | VM              | 33.0  | 36.70                          | 1                       | 5.0  | 53.3  | 7.5  |
| P4SMAJ36     | JN               | VN              | 36.0  | 40.00                          | 1                       | 5.0  | 64.3  | 6.2  |
| P4SMAJ36A    | JP               | VP              | 36.0  | 40.00                          | 1                       | 5.0  | 58.1  | 6.9  |
| P4SMAJ40     | JQ               | VQ              | 40.0  | 44.40                          | 1                       | 5.0  | 71.4  | 5.6  |
| P4SMAJ40A    | JR               | VR              | 40.0  | 44.40                          | 1                       | 5.0  | 64.5  | 6.2  |

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**Electrical Characteristics (continued)**

| Part Number* | Uni Part Marking | Bi Part Marking | Rated Standoff Voltage V <sub>WM</sub><br>(Volts) | Breakdown Voltage              |                         | Maximum Stand By Current @V <sub>WM</sub> + I <sub>D</sub><br>(µA) | 10/1000µs Maximum Clamping Voltage @I <sub>PPM</sub> #<br>V <sub>C</sub> Max<br>(Volts) | 10/1000µs Rated Peak Impulse Current I <sub>PPM</sub> #<br>(Amperes) |
|--------------|------------------|-----------------|---|--------------------------------|-------------------------|--|---|--|
|              |                  |                 |   | V <sub>BR</sub> Min<br>(Volts) | @I <sub>T</sub><br>(mA) |  |   |  |
|              |                  |                 |   | P4SMAJ43                       | JS                      |  |   |  |
| P4SMAJ43A    | JT               | VT              | 43.0  | 47.80                          | 1                       | 5.0  | 69.4  | 5.7  |
| P4SMAJ45     | JU               | VU              | 45.0  | 50.00                          | 1                       | 5.0  | 80.3  | 5.0  |
| P4SMAJ45A    | JV               | VV              | 45.0  | 50.00                          | 1                       | 5.0  | 72.7  | 5.5  |
| P4SMAJ48     | JW               | VW              | 48.0  | 53.30                          | 1                       | 5.0  | 85.5  | 4.7  |
| P4SMAJ48A    | JX               | VX              | 48.0  | 53.30                          | 1                       | 5.0  | 77.4  | 5.2  |
| P4SMAJ51     | JY               | VY              | 51.0  | 56.70                          | 1                       | 5.0  | 91.1  | 4.4  |
| P4SMAJ51A    | JZ               | VZ              | 51.0  | 56.70                          | 1                       | 5.0  | 82.4  | 4.9  |
| P4SMAJ54     | RD               | WD              | 54.0  | 60.00                          | 1                       | 5.0  | 96.3  | 4.2  |
| P4SMAJ54A    | RE               | WE              | 54.0  | 60.00                          | 1                       | 5.0  | 87.1  | 4.6  |
| P4SMAJ58     | RF               | WF              | 58.0  | 64.40                          | 1                       | 5.0  | 103.0   | 3.9  |
| P4SMAJ58A    | RG               | WG              | 58.0  | 64.40                          | 1                       | 5.0  | 93.6  | 4.3  |
| P4SMAJ60     | RH               | WH              | 60.0  | 66.70                          | 1                       | 5.0  | 107.0   | 3.7  |
| P4SMAJ60A    | RK               | WK              | 60.0  | 66.70                          | 1                       | 5.0  | 96.8  | 4.1  |
| P4SMAJ64     | RL               | WL              | 64.0  | 71.10                          | 1                       | 5.0  | 114.0   | 3.5  |
| P4SMAJ64A    | RM               | WM              | 64.0  | 71.10                          | 1                       | 5.0  | 103.0   | 3.9  |
| P4SMAJ70     | RN               | WN              | 70.0  | 77.80                          | 1                       | 5.0  | 125.0   | 3.2  |
| P4SMAJ70A    | RP               | WP              | 70.0  | 77.80                          | 1                       | 5.0  | 113.0   | 3.5  |
| P4SMAJ75     | RQ               | WQ              | 75.0  | 83.30                          | 1                       | 5.0  | 134.0   | 3.0  |
| P4SMAJ75A    | RR               | WR              | 75.0  | 83.30                          | 1                       | 5.0  | 121.0   | 3.3  |
| P4SMAJ78     | RS               | WS              | 78.0  | 86.70                          | 1                       | 5.0  | 139.0   | 2.9  |
| P4SMAJ78A    | RT               | WT              | 78.0  | 86.70                          | 1                       | 5.0  | 126.0   | 2.2  |
| P4SMAJ85     | RU               | WU              | 85.0  | 94.40                          | 1                       | 5.0  | 151.0   | 2.6  |
| P4SMAJ85A    | RV               | WV              | 85.0  | 94.40                          | 1                       | 5.0  | 137.0   | 2.9  |
| P4SMAJ90     | RW               | WW              | 90.0  | 100.00                         | 1                       | 5.0  | 160.0   | 2.5  |
| P4SMAJ90A    | RX               | WX              | 90.0  | 100.00                         | 1                       | 5.0  | 146.0   | 2.7  |

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**Electrical Characteristics (continued)**

| Part Number* | Uni Part Marking | Bi Part Marking | Rated Standoff Voltage V <sub>WM</sub><br>(Volts) | Breakdown Voltage              |                         | Maximum Stand By Current @V <sub>WM</sub> + I <sub>D</sub><br>(µA) | 10/1000µs Maximum Clamping Voltage @I <sub>PPM</sub> #<br>V <sub>C</sub> Max<br>(Volts) | 10/1000µs Rated Peak Impulse Current I <sub>PPM</sub> #<br>(Amperes) |
|--------------|------------------|-----------------|---|--------------------------------|-------------------------|--|---|--|
|              |                  |                 |   | V <sub>BR</sub> Min<br>(Volts) | @I <sub>T</sub><br>(mA) |  |   |  |
|              |                  |                 |   |                                |                         |  |   |  |
| P4SMAJ100    | RY               | WY              | 100.0   | 111.00                         | 1                       | 5.0  | 179.0   | 2.2  |
| P4SMAJ100A   | RZ               | WZ              | 100.0   | 111.00                         | 1                       | 5.0  | 162.0   | 2.5  |
| P4SMAJ110    | SD               | XD              | 110.0   | 122.00                         | 1                       | 5.0  | 196.0   | 2.0  |
| P4SMAJ110A   | SE               | XE              | 110.0   | 122.00                         | 1                       | 5.0  | 177.0   | 2.3  |
| P4SMAJ120    | SF               | XF              | 120.0   | 133.00                         | 1                       | 5.0  | 214.0   | 1.9  |
| P4SMAJ120A   | SG               | XG              | 120.0   | 133.00                         | 1                       | 5.0  | 193.0   | 2.0  |
| P4SMAJ130    | SH               | XH              | 130.0   | 144.00                         | 1                       | 5.0  | 231.0   | 1.7  |
| P4SMAJ130A   | SK               | XK              | 130.0   | 144.00                         | 1                       | 5.0  | 209.0   | 1.9  |
| P4SMAJ150    | SL               | XL              | 150.0   | 167.00                         | 1                       | 5.0  | 268.0   | 1.5  |
| P4SMAJ150A   | SM               | XM              | 150.0   | 167.00                         | 1                       | 5.0  | 243.0   | 1.6  |
| P4SMAJ160    | SN               | XN              | 160.0   | 178.00                         | 1                       | 5.0  | 287.0   | 1.4  |
| P4SMAJ160A   | SP               | XP              | 160.0   | 178.00                         | 1                       | 5.0  | 259.0   | 1.5  |
| P4SMAJ170    | SQ               | XQ              | 170.0   | 189.00                         | 1                       | 5.0  | 304.0   | 1.3  |
| P4SMAJ170A   | SR               | XR              | 170.0   | 189.00                         | 1                       | 5.0  | 275.0   | 1.4  |

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