# P4SMAJ SERIES

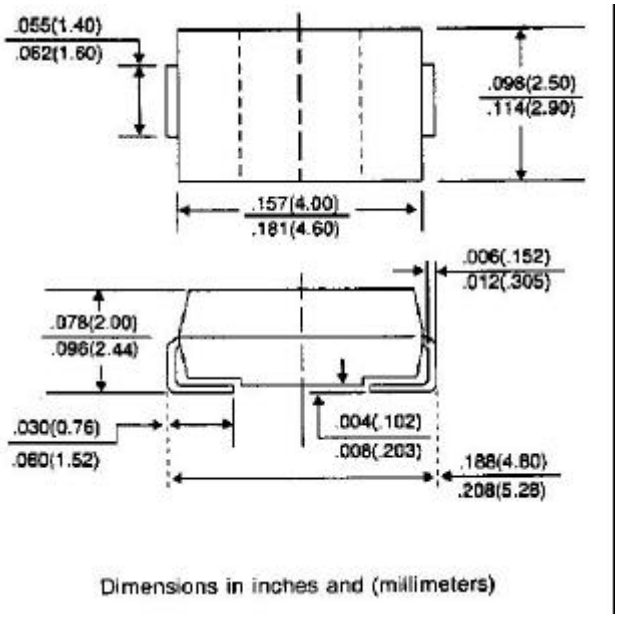
## SURFACE MOUNT TRANSIENT VOLTAGE SUPPRESSOR

## VOLTAGE - 5.0 TO 170 Volts  400Watt Peak Power Pulse

**FEATURES**

- For surface mounted applications in order to optimize board space
- Low profile package
- Built-in strain relief
- Glass passivated junction
- Low inductance
- Excellent clamping capability
- Repetition Rate(duty cycle):0.01%
- Fast response time: typically less than 1.0 ps from 0 volts to BV for undirectional types
- Typical $I_D$ less than 1  A above 10V
- High temperature soldering : 250  /10 seconds at terminals
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O

**SMA/DO-214AC**




Dimensions in inches and (millimeters)

**MECHANICAL DATA**

Case: JEDEC DO-214AC low profile molded plastic

Terminals: Solder plated, solderable per MIL-STD-750, Method 2026

Polarity: Indicated by cathode band except bi-directional types

Weight: 0.002 ounces, 0.064 gram

Standard packaging:12 mm tape per(EIA 481)

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25  ambient temperature unless otherwise specified.

| | SYMBOL | VALUE | UNITS |
|---|---|---|---|
| Peak Pulse Power Dissipation at $T_A$=25  , Fig. 1 (Note 1,2,5) | $P_{PPM}$ | Minimum 400 | Watts |
| Peak forward Surge Current per Fig. 5  (Note 3) | $I_{FSM}$ | 40.0 | Amps |
| Peak Pulse Current current on 10/1000  s waveform (Note 1,Fig 2) | $I_{PPM}$ | See Table 1 | Amps |
| Steady State Power Dissipation (Note 4) | $P_{M(AV)}$ | 1.0 | Watts |
| Operating Junction and Storage Temperature Range | $T_J$,$T_{STG}$ | -55 to +150 | |

NOTES:

1.Non-repetitive current pulse, per Fig. 3 and derated above $T_A$=25  per Fig. 2.

2.Mounted on 5.0mm$^2$ copper pads to each terminal.

3.8.3ms single half sine-wave, duty cycle= 4 pulses per minutes maximum.

4.Lead temperature at 75 =$T_{L.}$

5.Peak pulse power waveform is 10/1000 s.

## MAXIMUM RATINGS AND CHARACTERISTIC CURVES P4SMAJ SERIES

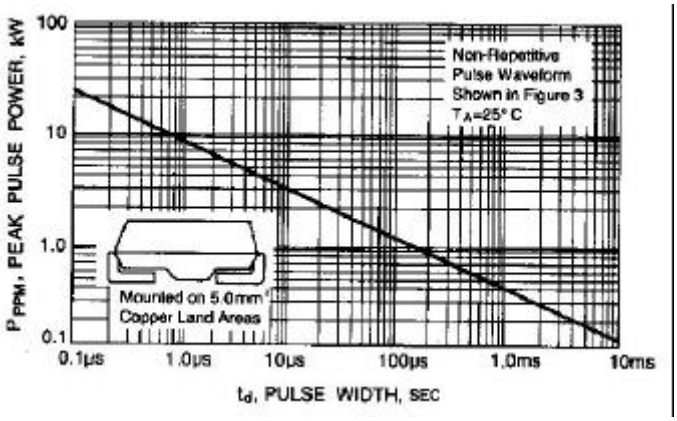



Fig. 1-PEAK PULSE POWER RATING VERSUS

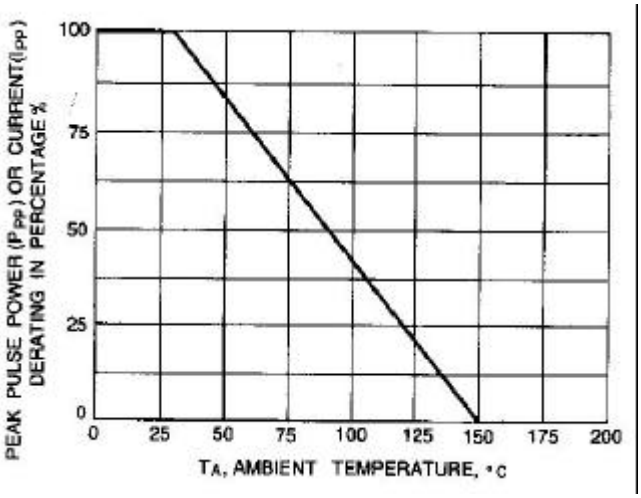



Fig. 2-PULSE RATING CURVE

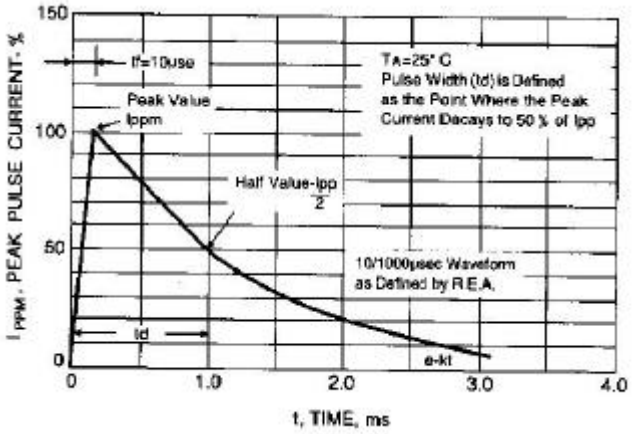



Fig. 3-PULSE WAVEFORM

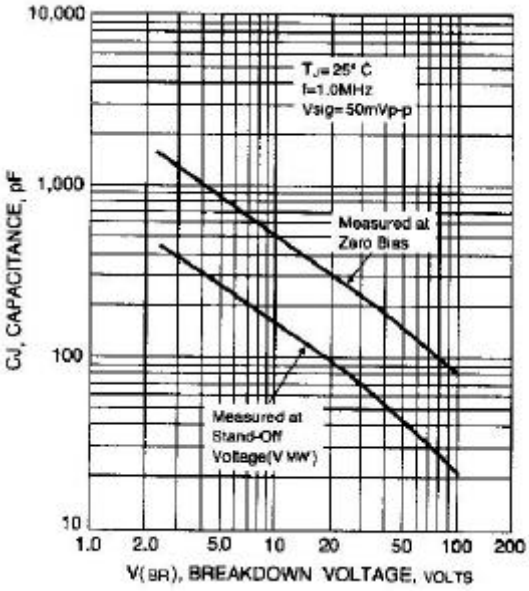



Fig. 4-TYPICAL JUNCTION CAPACITANCE

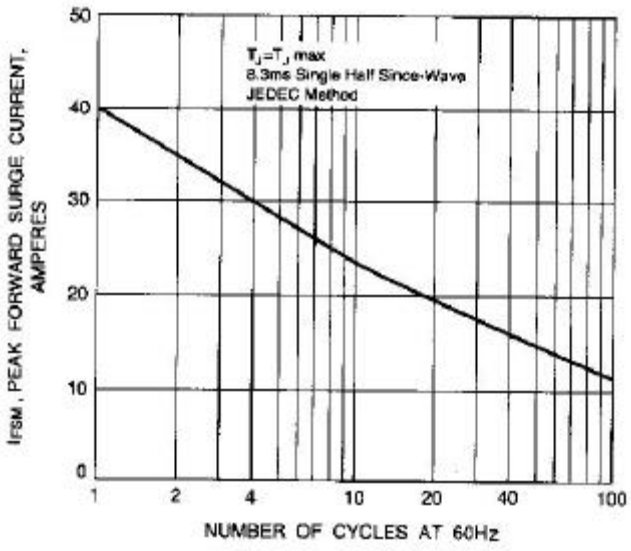



Fig. 5- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

**UNI-DIRECTIONAL 400 Watt Surface Mount TVS**

| UNI-DIRECTIONAL PART NUMBER | DEVICE MARKING CODE | REVERSE STAND-OFF VOLTAGE VRWM (V) | BREAKDOWN VOLTAGE VBR (V) MIN. @IT | BREAKDOWN VOLTAGE VBR (V) MAX. @IT | TEST CURRENT IT (mA) | MAXIMUM CLAMPING VOLTAGE @$I_{PP}$ VC (V) | PEAK PULSE CURRENT $I_{PP}$ (A) | REVERSE LEAKAGE @VRWM IR (uA) |
|---|---|---|---|---|---|---|---|---|
| P4SMAJ5.0 | HD | 5.0 | 6.40 | 7.55 | 10 | 9.6 | 41.6 | 800 |
| P4SMAJ5.0A | HE | 5.0 | 6.40 | 7.25 | 10 | 9.2 | 43.5 | 800 |
| P4SMAJ6.0 | HF | 6.0 | 6.67 | 8.45 | 10 | 11.4 | 35.1 | 800 |
| P4SMAJ6.0A | HG | 6.0 | 6.67 | 7.67 | 10 | 10.3 | 38.8 | 800 |
| P4SMAJ6.5 | HH | 6.5 | 7.22 | 9.14 | 10 | 12.3 | 32.5 | 500 |
| P4SMAJ6.5A | HK | 6.5 | 7.22 | 8.30 | 10 | 11.2 | 35.7 | 500 |
| P4SMAJ7.0 | HL | 7.0 | 7.78 | 9.86 | 10 | 13.3 | 30.1 | 200 |
| P4SMAJ7.0A | HM | 7.0 | 7.78 | 8.95 | 10 | 12.0 | 33.3 | 200 |
| P4SMAJ7.5 | HN | 7.5 | 8.33 | 10.67 | 1 | 14.3 | 28.0 | 100 |
| P4SMAJ7.5A | HP | 7.5 | 8.33 | 9.58 | 1 | 12.9 | 31.0 | 100 |
| P4SMAJ8.0 | HQ | 8.0 | 8.89 | 11.30 | 1 | 15.0 | 26.5 | 50 |
| P4SMAJ8.0A | HR | 8.0 | 8.89 | 10.23 | 1 | 13.6 | 29.4 | 50 |
| P4SMAJ8.5 | HS | 8.5 | 9.44 | 11.92 | 1 | 15.9 | 25.1 | 10 |
| P4SMAJ8.5A | HT | 8.5 | 9.44 | 10.82 | 1 | 14.4 | 27.7 | 10 |
| P4SMAJ9.0 | HU | 9.0 | 10.00 | 12.60 | 1 | 16.9 | 23.6 | 5 |
| P4SMAJ9.0A | HV | 9.0 | 10.00 | 11.50 | 1 | 15.4 | 26.0 | 5 |
| P4SMAJ10 | HW | 10.0 | 11.10 | 14.10 | 1 | 18.8 | 21.2 | 5 |
| P4SMAJ10A | HX | 10.0 | 11.10 | 12.80 | 1 | 17.0 | 23.5 | 5 |
| P4SMAJ11 | HY | 11.0 | 12.20 | 15.40 | 1 | 20.1 | 20.0 | 5 |
| P4SMAJ11A | HZ | 11.0 | 12.20 | 14.00 | 1 | 18.2 | 22.0 | 5 |
| P4SMAJ12 | ID | 12.0 | 13.30 | 16.90 | 1 | 22.0 | 18.1 | 5 |
| P4SMAJ12A | IE | 12.0 | 13.30 | 15.30 | 1 | 19.9 | 20.1 | 5 |
| P4SMAJ13 | IF | 13.0 | 14.40 | 18.20 | 1 | 23.8 | 16.8 | 5 |
| P4SMAJ13A | IG | 13.0 | 14.40 | 16.50 | 1 | 21.5 | 18.6 | 5 |
| P4SMAJ14 | IH | 14.0 | 15.60 | 19.80 | 1 | 25.8 | 15.5 | 5 |
| P4SMAJ14A | IK | 14.0 | 15.60 | 17.90 | 1 | 23.2 | 17.2 | 5 |
| P4SMAJ15 | IL | 15.0 | 16.70 | 21.10 | 1 | 26.9 | 14.8 | 5 |
| P4SMAJ15A | IM | 15.0 | 16.70 | 19.20 | 1 | 24.4 | 16.4 | 5 |
| P4SMAJ16 | IN | 16.0 | 17.80 | 22.60 | 1 | 28.8 | 13.8 | 5 |
| P4SMAJ16A | IP | 16.0 | 17.80 | 20.50 | 1 | 26.0 | 15.3 | 5 |
| P4SMAJ17 | IQ | 17.0 | 18.90 | 23.90 | 1 | 30.5 | 13.1 | 5 |
| P4SMAJ17A | IR | 17.0 | 18.90 | 21.70 | 1 | 27.6 | 14.5 | 5 |
| P4SMAJ18 | IS | 18.0 | 20.00 | 25.30 | 1 | 32.2 | 12.4 | 5 |
| P4SMAJ18A | IT | 18.0 | 20.00 | 23.30 | 1 | 29.2 | 13.7 | 5 |
| P4SMAJ20 | IU | 20.0 | 22.20 | 28.10 | 1 | 35.8 | 11.1 | 5 |
| P4SMAJ20A | IV | 20.0 | 22.20 | 25.50 | 1 | 32.4 | 12.3 | 5 |
| P4SMAJ22 | IW | 22.0 | 24.40 | 30.90 | 1 | 39.4 | 10.1 | 5 |
| P4SMAJ22A | IX | 22.0 | 24.40 | 28.00 | 1 | 35.5 | 11.2 | 5 |
| P4SMAJ24 | IY | 24.0 | 26.70 | 33.80 | 1 | 43.0 | 9.3 | 5 |
| P4SMAJ24A | IZ | 24.0 | 26.70 | 30.70 | 1 | 38.9 | 10.3 | 5 |
| P4SMAJ26 | JD | 26.0 | 28.90 | 36.60 | 1 | 46.6 | 8.6 | 5 |
| P4SMAJ26A | JE | 26.0 | 28.90 | 33.20 | 1 | 42.1 | 9.5 | 5 |
| P4SMAJ28 | JF | 28.0 | 31.10 | 39.40 | 1 | 50.0 | 8.0 | 5 |
| P4SMAJ28A | JG | 28.0 | 31.10 | 35.80 | 1 | 45.4 | 8.8 | 5 |
| P4SMAJ30 | JH | 30.0 | 33.30 | 42.20 | 1 | 53.5 | 7.5 | 5 |
| P4SMAJ30A | JK | 30.0 | 33.30 | 38.30 | 1 | 48.4 | 8.3 | 5 |
| P4SMAJ33 | JL | 33.0 | 36.70 | 46.50 | 1 | 59.0 | 6.8 | 5 |
| P4SMAJ33A | JM | 33.0 | 36.70 | 42.20 | 1 | 53.3 | 7.5 | 5 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| P4SMAJ36 | JN | 36.0 | 40.00 | 50.70 | 1 | 64.3 | 6.2 | 5 |
| P4SMAJ36A | JP | 36.0 | 40.00 | 46.00 | 1 | 58.1 | 6.9 | 5 |
| P4SMAJ40 | JQ | 40.0 | 44.40 | 56.30 | 1 | 71.4 | 5.6 | 5 |
| P4SMAJ40A | JR | 40.0 | 44.40 | 51.10 | 1 | 64.5 | 6.2 | 5 |
| P4SMAJ43 | JS | 43.0 | 47.80 | 60.50 | 1 | 76.7 | 5.2 | 5 |
| P4SMAJ43A | JT | 43.0 | 47.80 | 54.90 | 1 | 69.4 | 5.7 | 5 |
| P4SMAJ45 | JU | 45.0 | 50.00 | 63.30 | 1 | 80.3 | 5.0 | 5 |
| P4SMAJ45A | JV | 45.0 | 50.00 | 57.50 | 1 | 72.7 | 5.5 | 5 |
| P4SMAJ48 | JW | 48.0 | 53.30 | 67.50 | 1 | 85.5 | 4.7 | 5 |
| P4SMAJ48A | JX | 48.0 | 53.30 | 61.30 | 1 | 77.4 | 5.2 | 5 |
| P4SMAJ51 | JY | 51.0 | 56.70 | 71.80 | 1 | 91.1 | 4.4 | 5 |
| P4SMAJ51A | JZ | 51.0 | 56.70 | 65.20 | 1 | 82.4 | 4.9 | 5 |
| P4SMAJ54 | RD | 54.0 | 60.00 | 76.00 | 1 | 96.3 | 4.2 | 5 |
| P4SMAJ54A | RE | 54.0 | 60.00 | 69.00 | 1 | 87.1 | 4.6 | 5 |
| P4SMAJ58 | RF | 58.0 | 64.40 | 81.60 | 1 | 103.0 | 3.9 | 5 |
| P4SMAJ58A | RG | 58.0 | 64.40 | 74.10 | 1 | 93.6 | 4.3 | 5 |
| P4SMAJ60 | RH | 60.0 | 66.70 | 84.50 | 1 | 107.0 | 3.7 | 5 |
| P4SMAJ60A | RK | 60.0 | 66.70 | 76.70 | 1 | 96.8 | 4.1 | 5 |
| P4SMAJ64 | RL | 64.0 | 71.10 | 90.10 | 1 | 114.0 | 3.5 | 5 |
| P4SMAJ64A | RM | 64.0 | 71.10 | 81.80 | 1 | 103.0 | 3.9 | 5 |

## UNI-DIRECTIONAL 400 Watt Surface Mount TVS

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|---|---|---|---|---|---|---|---|---|
| P4SMAJ70 | RN | 70.0 | 77.80 | 98.60 | 1 | 125.0 | 3.2 | 5 |
| P4SMAJ70A | RP | 70.0 | 77.80 | 89.50 | 1 | 113.0 | 3.5 | 5 |
| P4SMAJ75 | RQ | 75.0 | 83.30 | 105.70 | 1 | 134.0 | 3.0 | 5 |
| P4SMAJ75A | RR | 75.0 | 83.30 | 95.80 | 1 | 121.0 | 3.3 | 5 |
| P4SMAJ78 | RS | 78.0 | 86.70 | 109.80 | 1 | 139.0 | 2.9 | 5 |
| P4SMAJ78A | RT | 78.0 | 86.70 | 99.70 | 1 | 126.0 | 2.2 | 5 |
| P4SMAJ85 | RU | 85.0 | 94.40 | 119.20 | 1 | 151.0 | 2.6 | 5 |
| P4SMAJ85A | RV | 85.0 | 94.40 | 108.20 | 1 | 137.0 | 2.9 | 5 |
| P4SMAJ90 | RW | 90.0 | 100.00 | 126.50 | 1 | 160.0 | 2.5 | 5 |
| P4SMAJ90A | RX | 90.0 | 100.00 | 115.50 | 1 | 146.0 | 2.7 | 5 |
| P4SMAJ100 | RY | 100.0 | 111.00 | 141.00 | 1 | 179.0 | 2.2 | 5 |
| P4SMAJ100A | RZ | 100.0 | 111.00 | 128.00 | 1 | 162.0 | 2.5 | 5 |
| P4SMAJ110 | SD | 110.0 | 122.00 | 154.50 | 1 | 196.0 | 2.0 | 5 |
| P4SMAJ110A | SE | 110.0 | 122.00 | 140.50 | 1 | 177.0 | 2.3 | 5 |
| P4SMAJ120 | SF | 120.0 | 133.00 | 169.00 | 1 | 214.0 | 1.9 | 5 |
| P4SMAJ120A | SG | 120.0 | 133.00 | 153.00 | 1 | 193.0 | 2.0 | 5 |
| P4SMAJ130 | SH | 130.0 | 144.00 | 182.50 | 1 | 231.0 | 1.7 | 5 |
| P4SMAJ130A | SK | 130.0 | 144.00 | 165.50 | 1 | 209.0 | 1.9 | 5 |
| P4SMAJ150 | SL | 150.0 | 167.00 | 211.50 | 1 | 268.0 | 1.5 | 5 |
| P4SMAJ150A | SM | 150.0 | 167.00 | 192.50 | 1 | 243.0 | 1.6 | 5 |
| P4SMAJ160 | SN | 160.0 | 178.00 | 226.00 | 1 | 287.0 | 1.4 | 5 |
| P4SMAJ160A | SP | 160.0 | 178.00 | 205.00 | 1 | 259.0 | 1.5 | 5 |
| P4SMAJ170 | SQ | 170.0 | 189.00 | 239.50 | 1 | 304.0 | 1.3 | 5 |
| P4SMAJ170A | SR | 170.0 | 189.00 | 217.50 | 1 | 275.0 | 1.4 | 5 |

## BI-DIRECTIONAL 400 Watt Surface Mount TVS

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|---|---|---|---|---|---|---|---|---|
| P4SMAJ5.0C | TD | 5.0 | 6.40 | 7.55 | 10 | 9.6 | 41.6 | 1600 |
| P4SMAJ5.0CA | TE | 5.0 | 6.40 | 7.25 | 10 | 9.2 | 43.5 | 1600 |
| P4SMAJ6.0C | TF | 6.0 | 6.67 | 8.45 | 10 | 11.4 | 35.1 | 1600 |
| P4SMAJ6.0CA | TG | 6.0 | 6.67 | 7.67 | 10 | 10.3 | 38.8 | 1600 |
| P4SMAJ6.5C | TH | 6.5 | 7.22 | 9.14 | 10 | 12.3 | 32.5 | 1000 |
| P4SMAJ6.5CA | TK | 6.5 | 7.22 | 8.30 | 10 | 11.2 | 35.7 | 1000 |
| P4SMAJ7.0C | TL | 7.0 | 7.78 | 9.86 | 10 | 13.3 | 30.1 | 400 |
| P4SMAJ7.0CA | TM | 7.0 | 7.78 | 8.95 | 10 | 12.0 | 33.3 | 400 |
| P4SMAJ7.5C | TN | 7.5 | 8.33 | 10.67 | 1 | 14.3 | 28.0 | 200 |
| P4SMAJ7.5CA | TP | 7.5 | 8.33 | 9.58 | 1 | 12.9 | 31.0 | 200 |
| P4SMAJ8.0C | TQ | 8.0 | 8.89 | 11.30 | 1 | 15.0 | 26.5 | 100 |
| P4SMAJ8.0CA | TR | 8.0 | 8.89 | 10.23 | 1 | 13.6 | 29.4 | 100 |
| P4SMAJ8.5C | TS | 8.5 | 9.44 | 11.92 | 1 | 15.9 | 25.1 | 20 |
| P4SMAJ8.5CA | TT | 8.5 | 9.44 | 10.82 | 1 | 14.4 | 27.7 | 20 |
| P4SMAJ9.0C | TU | 9.0 | 10.00 | 12.60 | 1 | 16.9 | 23.6 | 10 |
| P4SMAJ9.0CA | TV | 9.0 | 10.00 | 11.50 | 1 | 15.4 | 26.0 | 10 |
| P4SMAJ10C | TW | 10.0 | 11.10 | 14.10 | 1 | 18.8 | 21.2 | 5 |
| P4SMAJ10CA | TX | 10.0 | 11.10 | 12.80 | 1 | 17.0 | 23.5 | 5 |
| P4SMAJ11C | TY | 11.0 | 12.20 | 15.40 | 1 | 20.1 | 20.0 | 5 |
| P4SMAJ11CA | TZ | 11.0 | 12.20 | 14.00 | 1 | 18.2 | 22.0 | 5 |
| P4SMAJ12C | UD | 12.0 | 13.30 | 16.90 | 1 | 22.0 | 18.1 | 5 |
| P4SMAJ12CA | UE | 12.0 | 13.30 | 15.30 | 1 | 19.9 | 20.1 | 5 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| P4SMAJ13C | UF | 13.0 | 14.40 | 18.20 | 1 | 23.8 | 16.8 | 5 |
| P4SMAJ13CA | UG | 13.0 | 14.40 | 16.50 | 1 | 21.5 | 18.6 | 5 |
| P4SMAJ14C | UH | 14.0 | 15.60 | 19.80 | 1 | 25.8 | 15.5 | 5 |
| P4SMAJ14CA | UK | 14.0 | 15.60 | 17.90 | 1 | 23.2 | 17.2 | 5 |
| P4SMAJ15C | UL | 15.0 | 16.70 | 21.10 | 1 | 26.9 | 14.8 | 5 |
| P4SMAJ15CA | UM | 15.0 | 16.70 | 19.20 | 1 | 24.4 | 16.4 | 5 |
| P4SMAJ16C | UN | 16.0 | 17.80 | 22.60 | 1 | 28.8 | 13.8 | 5 |
| P4SMAJ16CA | UP | 16.0 | 17.80 | 20.50 | 1 | 26.0 | 15.3 | 5 |
| P4SMAJ17C | UQ | 17.0 | 18.90 | 23.90 | 1 | 30.5 | 13.1 | 5 |
| P4SMAJ17CA | UR | 17.0 | 18.90 | 21.70 | 1 | 27.6 | 14.5 | 5 |
| P4SMAJ18C | US | 18.0 | 20.00 | 25.30 | 1 | 32.2 | 12.4 | 5 |
| P4SMAJ18CA | UT | 18.0 | 20.00 | 23.30 | 1 | 29.2 | 13.7 | 5 |
| P4SMAJ20C | UU | 20.0 | 22.20 | 28.10 | 1 | 35.8 | 11.1 | 5 |
| P4SMAJ20CA | UV | 20.0 | 22.20 | 25.50 | 1 | 32.4 | 12.3 | 5 |
| P4SMAJ22C | UW | 22.0 | 24.40 | 30.90 | 1 | 39.4 | 10.1 | 5 |
| P4SMAJ22CA | UX | 22.0 | 24.40 | 28.00 | 1 | 35.5 | 11.2 | 5 |
| P4SMAJ24C | UY | 24.0 | 26.70 | 33.80 | 1 | 43.0 | 9.3 | 5 |
| P4SMAJ24CA | UZ | 24.0 | 26.70 | 30.70 | 1 | 38.9 | 10.3 | 5 |
| P4SMAJ26C | VD | 26.0 | 28.90 | 36.60 | 1 | 46.6 | 8.6 | 5 |
| P4SMAJ26CA | VE | 26.0 | 28.90 | 33.20 | 1 | 42.1 | 9.5 | 5 |
| P4SMAJ28C | VF | 28.0 | 31.10 | 39.40 | 1 | 50.0 | 8.0 | 5 |
| P4SMAJ28CA | VG | 28.0 | 31.10 | 35.80 | 1 | 45.4 | 8.8 | 5 |
| P4SMAJ30C | VH | 30.0 | 33.30 | 42.20 | 1 | 53.5 | 7.5 | 5 |
| P4SMAJ30CA | VK | 30.0 | 33.30 | 38.30 | 1 | 48.4 | 8.3 | 5 |
| P4SMAJ33C | VL | 33.0 | 36.70 | 46.50 | 1 | 59.0 | 6.8 | 5 |
| P4SMAJ33CA | VM | 33.0 | 36.70 | 42.20 | 1 | 53.3 | 7.5 | 5 |
| P4SMAJ36C | VN | 36.0 | 40.00 | 50.70 | 1 | 64.3 | 6.2 | 5 |
| P4SMAJ36CA | VP | 36.0 | 40.00 | 46.00 | 1 | 58.1 | 6.9 | 5 |
| P4SMAJ40C | VQ | 40.0 | 44.40 | 56.30 | 1 | 71.4 | 5.6 | 5 |
| P4SMAJ40CA | VR | 40.0 | 44.40 | 51.10 | 1 | 64.5 | 6.2 | 5 |
| P4SMAJ43C | VS | 43.0 | 47.80 | 60.50 | 1 | 76.7 | 5.2 | 5 |
| P4SMAJ43CA | VT | 43.0 | 47.80 | 54.90 | 1 | 69.4 | 5.7 | 5 |
| P4SMAJ45C | VU | 45.0 | 50.00 | 63.30 | 1 | 80.3 | 5.0 | 5 |
| P4SMAJ45CA | VV | 45.0 | 50.00 | 57.50 | 1 | 72.7 | 5.5 | 5 |
| P4SMAJ48C | VW | 48.0 | 53.30 | 67.50 | 1 | 85.5 | 4.7 | 5 |
| P4SMAJ48CA | VX | 48.0 | 53.30 | 61.30 | 1 | 77.4 | 5.2 | 5 |
| P4SMAJ51C | VY | 51.0 | 56.70 | 71.80 | 1 | 91.1 | 4.4 | 5 |
| P4SMAJ51CA | VZ | 51.0 | 56.70 | 65.20 | 1 | 82.4 | 4.9 | 5 |
| P4SMAJ54C | WD | 54.0 | 60.00 | 76.00 | 1 | 96.3 | 4.2 | 5 |
| P4SMAJ54CA | WE | 54.0 | 60.00 | 69.00 | 1 | 87.1 | 4.6 | 5 |
| P4SMAJ58C | WF | 58.0 | 64.40 | 81.60 | 1 | 103.0 | 3.9 | 5 |
| P4SMAJ58CA | WG | 58.0 | 64.40 | 74.10 | 1 | 93.6 | 4.3 | 5 |
| P4SMAJ60C | WH | 60.0 | 66.70 | 84.50 | 1 | 107.0 | 3.7 | 5 |
| P4SMAJ60CA | WK | 60.0 | 66.70 | 76.70 | 1 | 96.8 | 4.1 | 5 |
| P4SMAJ64C | WL | 64.0 | 71.10 | 90.10 | 1 | 114.0 | 3.5 | 5 |
| P4SMAJ64CA | WM | 64.0 | 71.10 | 81.80 | 1 | 103.0 | 3.9 | 5 |

**BI-DIRECTIONAL 400 Watt Surface Mount TVS**

| BI-DIRECTIONAL PART NUMBER | DEVICE MARKING CODE | REVERSE STAND-OFF VOLTAGE VRWM (V) | BREAKDOWN VOLTAGE VBR (V) MIN. @IT | BREAKDOWN VOLTAGE VBR (V) MAX. @IT | TEST CURRENT IT (mA) | MAXIMUM CLAMPING VOLTAGE @$I_{PP}$ VC (V) | PEAK PULSE CURRENT $I_{PP}$ (A) | REVERSE LEAKAGE @VRWM IR (uA) |
|---|---|---|---|---|---|---|---|---|
| P4SMAJ70C | WN | 70.0 | 77.80 | 98.60 | 1 | 125.0 | 3.2 | 5 |
| P4SMAJ70CA | WP | 70.0 | 77.80 | 89.50 | 1 | 113.0 | 3.5 | 5 |
| P4SMAJ75C | WQ | 75.0 | 83.30 | 105.70 | 1 | 134.0 | 3.0 | 5 |
| P4SMAJ75CA | WR | 75.0 | 83.30 | 95.80 | 1 | 121.0 | 3.3 | 5 |
| P4SMAJ78C | WS | 78.0 | 86.70 | 109.80 | 1 | 139.0 | 2.9 | 5 |
| P4SMAJ78CA | WT | 78.0 | 86.70 | 99.70 | 1 | 126.0 | 2.2 | 5 |
| P4SMAJ85C | WU | 85.0 | 94.40 | 119.20 | 1 | 151.0 | 2.6 | 5 |
| P4SMAJ85CA | WV | 85.0 | 94.40 | 108.20 | 1 | 137.0 | 2.9 | 5 |
| P4SMAJ90C | WW | 90.0 | 100.00 | 126.50 | 1 | 160.0 | 2.5 | 5 |
| P4SMAJ90CA | WX | 90.0 | 100.00 | 115.50 | 1 | 146.0 | 2.7 | 5 |
| P4SMAJ100C | WY | 100.0 | 111.00 | 141.00 | 1 | 179.0 | 2.2 | 5 |
| P4SMAJ100CA | WZ | 100.0 | 111.00 | 128.00 | 1 | 162.0 | 2.5 | 5 |
| P4SMAJ110C | XD | 110.0 | 122.00 | 154.50 | 1 | 196.0 | 2.0 | 5 |
| P4SMAJ110CA | XE | 110.0 | 122.00 | 140.50 | 1 | 177.0 | 2.3 | 5 |
| P4SMAJ120C | XF | 120.0 | 133.00 | 169.00 | 1 | 214.0 | 1.9 | 5 |
| P4SMAJ120CA | XG | 120.0 | 133.00 | 153.00 | 1 | 193.0 | 2.0 | 5 |
| P4SMAJ130C | XH | 130.0 | 144.00 | 182.50 | 1 | 231.0 | 1.7 | 5 |
| P4SMAJ130CA | XK | 130.0 | 144.00 | 165.50 | 1 | 209.0 | 1.9 | 5 |
| P4SMAJ150C | XL | 150.0 | 167.00 | 211.50 | 1 | 268.0 | 1.5 | 5 |
| P4SMAJ150CA | XM | 150.0 | 167.00 | 192.50 | 1 | 243.0 | 1.6 | 5 |
| P4SMAJ160C | XN | 160.0 | 178.00 | 226.00 | 1 | 287.0 | 1.4 | 5 |
| P4SMAJ160CA | XP | 160.0 | 178.00 | 205.00 | 1 | 259.0 | 1.5 | 5 |
| P4SMAJ170C | XQ | 170.0 | 189.00 | 239.50 | 1 | 304.0 | 1.3 | 5 |
| P4SMAJ170CA | XR | 170.0 | 189.00 | 217.50 | 1 | 275.0 | 1.4 | 5 |