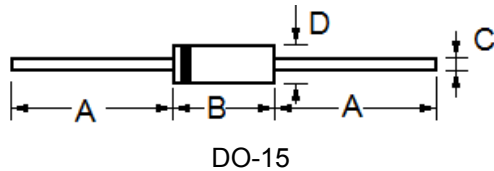




AXIAL LEAD TRANSIENT VOLTAGE SUPPRESSORS

SA5.0 - SA440CA

DIMENSION



| Dim | Millimeters | | Inches | |
|-----|-------------|------|--------|-------|
| | Min | Max | Min | Max |
| A | 25.4 | --- | 1.000 | --- |
| B | 5.80 | 7.60 | 0.230 | 0.300 |
| C | 0.70 | 0.90 | 0.028 | 0.034 |
| D | 2.60 | 3.60 | 0.104 | 0.140 |

SPECIFICATION

| Type Number | | Reverse Stand-Off Voltage | Breakdown Voltage Min. @I _T | Breakdown Voltage Max. @ I _T | Test Current | Maximum Clamping Voltage @I _{PP} | Peak Pulse Current | Reverse Leakage @V _{RMW} |
|-------------|---------|---------------------------|--|---|---------------------|---|---------------------|-----------------------------------|
| (Uni) | (Bi) | V _{RMW} (V) | V _{BR MIN} (V) | V _{BR MAX} (V) | I _T (mA) | V _C (V) | I _{PP} (A) | I _R (uA) |
| SA5.0 | SA5.0C | 5.0 | 6.40 | 7.30 | 10 | 9.6 | 53.1 | 600.0 |
| SA5.0A | SA5.0CA | 5.0 | 6.40 | 7.00 | 10 | 9.2 | 55.4 | 600.0 |
| SA6.0 | SA6.0C | 6.0 | 6.67 | 8.15 | 10 | 11.4 | 44.7 | 600.0 |
| SA6.0A | SA6.0CA | 6.0 | 6.67 | 7.37 | 10 | 10.3 | 49.5 | 600.0 |
| SA6.5 | SA6.5C | 6.5 | 7.22 | 8.82 | 10 | 12.3 | 41.5 | 400.0 |
| SA6.5A | SA6.5CA | 6.5 | 7.22 | 7.98 | 10 | 11.2 | 45.5 | 400.0 |
| SA7.0 | SA7.0C | 7.0 | 7.78 | 9.51 | 10 | 13.3 | 39.3 | 150.0 |
| SA7.0A | SA7.0CA | 7.0 | 7.78 | 8.60 | 10 | 12.0 | 42.5 | 150.0 |
| SA7.5 | SA7.5C | 7.5 | 8.33 | 10.2 | 1.0 | 14.3 | 35.7 | 50.0 |
| SA7.5A | SA7.5CA | 7.5 | 8.33 | 9.21 | 1.0 | 12.9 | 39.5 | 50.0 |
| SA8.0 | SA8.0C | 8.0 | 8.89 | 10.9 | 1.0 | 15.0 | 34.0 | 25.0 |
| SA8.0A | SA8.0CA | 8.0 | 8.89 | 9.83 | 1.0 | 13.6 | 37.5 | 25.0 |
| SA8.5 | SA8.5C | 8.5 | 9.44 | 11.5 | 1.0 | 15.9 | 32.1 | 10.0 |
| SA8.5A | SA8.5CA | 8.5 | 9.44 | 10.4 | 1.0 | 14.4 | 35.4 | 10.0 |
| SA9.0 | SA9.0C | 9.0 | 10.0 | 12.2 | 1.0 | 16.9 | 30.2 | 5.0 |
| SA9.0A | SA9.0CA | 9.0 | 10.0 | 11.1 | 1.0 | 15.4 | 33.1 | 5.0 |
| SA10 | SA10C | 10 | 11.1 | 13.6 | 1.0 | 18.8 | 27.1 | 3.0 |
| SA10A | SA10CA | 10 | 11.1 | 12.3 | 1.0 | 17.0 | 30.0 | 3.0 |
| SA11 | SA11C | 11 | 12.2 | 14.9 | 1.0 | 20.1 | 25.4 | 3.0 |
| SA11A | SA11CA | 11 | 12.2 | 13.5 | 1.0 | 18.2 | 28.0 | 3.0 |
| SA12 | SA12C | 12 | 13.3 | 16.3 | 1.0 | 22.0 | 23.2 | 3.0 |
| SA12A | SA12CA | 12 | 13.3 | 14.7 | 1.0 | 19.9 | 25.6 | 3.0 |
| SA13 | SA13C | 13 | 14.4 | 17.6 | 1.0 | 23.8 | 21.4 | 3.0 |
| SA13A | SA13CA | 13 | 14.4 | 15.9 | 1.0 | 21.5 | 23.7 | 3.0 |

For Bi-directional type having VRWM of 10 Volts and less, the IR limit is double



AXIAL LEAD TRANSIENT VOLTAGE SUPPRESSORS

SA5.0 - SA440CA

| Type Number | | Reverse Stand-Off Voltage | Breakdown Voltage Min. @I _T | Breakdown Voltage Max. @ I _T | Test Current | Maximum Clamping Voltage @I _{PP} | Peak Pulse Current | Reverse Leakage @V _{RMW} |
|-------------|--------|---------------------------|--|---|---------------------|---|---------------------|-----------------------------------|
| (Uni) | (Bi) | V _{RMW} (V) | V _{BR MIN} (V) | V _{BR MAX} (V) | I _T (mA) | V _C (V) | I _{PP} (A) | I _R (uA) |
| SA14 | SA14C | 14 | 15.6 | 19.1 | 1.0 | 25.8 | 19.8 | 3.0 |
| SA14A | SA14CA | 14 | 15.6 | 17.2 | 1.0 | 23.2 | 22.0 | 3.0 |
| SA15 | SA15C | 15 | 16.7 | 20.4 | 1.0 | 26.9 | 19.0 | 3.0 |
| SA15A | SA15CA | 15 | 16.7 | 18.5 | 1.0 | 24.4 | 20.9 | 3.0 |
| SA16 | SA16C | 16 | 17.8 | 21.8 | 1.0 | 28.8 | 17.7 | 3.0 |
| SA16A | SA16CA | 16 | 17.8 | 19.7 | 1.0 | 26.0 | 19.6 | 3.0 |
| SA17 | SA17C | 17 | 18.9 | 23.1 | 1.0 | 30.5 | 16.7 | 3.0 |
| SA17A | SA17CA | 17 | 18.9 | 20.9 | 1.0 | 27.6 | 18.5 | 3.0 |
| SA18 | SA18C | 18 | 20.0 | 24.4 | 1.0 | 32.2 | 15.8 | 3.0 |
| SA18A | SA18CA | 18 | 20.0 | 22.1 | 1.0 | 29.2 | 17.5 | 3.0 |
| SA20 | SA20C | 20 | 22.2 | 27.1 | 1.0 | 35.8 | 14.2 | 3.0 |
| SA20A | SA20CA | 20 | 22.2 | 24.5 | 1.0 | 32.4 | 15.7 | 3.0 |
| SA22 | SA22C | 22 | 24.4 | 29.8 | 1.0 | 39.4 | 12.9 | 3.0 |
| SA22A | SA22CA | 22 | 24.4 | 26.9 | 1.0 | 35.5 | 14.4 | 3.0 |
| SA24 | SA24C | 24 | 26.7 | 32.6 | 1.0 | 43.0 | 11.9 | 3.0 |
| SA24A | SA24CA | 24 | 26.7 | 29.5 | 1.0 | 38.9 | 13.1 | 3.0 |
| SA26 | SA26C | 26 | 28.9 | 35.3 | 1.0 | 46.6 | 10.9 | 3.0 |
| SA26A | SA26CA | 26 | 28.9 | 31.9 | 1.0 | 42.1 | 12.1 | 3.0 |
| SA28 | SA28C | 28 | 31.1 | 38.0 | 1.0 | 50.0 | 10.2 | 3.0 |
| SA28A | SA28CA | 28 | 31.1 | 34.4 | 1.0 | 45.4 | 11.2 | 3.0 |
| SA30 | SA30C | 30 | 33.3 | 40.7 | 1.0 | 53.5 | 9.5 | 3.0 |
| SA30A | SA30CA | 30 | 33.3 | 36.8 | 1.0 | 48.4 | 10.5 | 3.0 |
| SA33 | SA33C | 33 | 36.7 | 44.9 | 1.0 | 59.0 | 8.6 | 3.0 |
| SA33A | SA33CA | 33 | 36.7 | 40.6 | 1.0 | 53.3 | 9.6 | 3.0 |
| SA36 | SA36C | 36 | 40.0 | 48.9 | 1.0 | 64.3 | 7.9 | 3.0 |
| SA36A | SA36CA | 36 | 40.0 | 44.2 | 1.0 | 58.1 | 8.8 | 3.0 |
| SA40 | SA40C | 40 | 44.4 | 54.3 | 1.0 | 71.4 | 7.1 | 3.0 |
| SA40A | SA40CA | 40 | 44.4 | 49.1 | 1.0 | 64.5 | 7.9 | 3.0 |
| SA43 | SA43C | 43 | 47.8 | 58.4 | 1.0 | 76.7 | 6.6 | 3.0 |
| SA43A | SA43CA | 43 | 47.8 | 52.8 | 1.0 | 69.4 | 7.3 | 3.0 |
| SA45 | SA45C | 45 | 50.0 | 61.1 | 1.0 | 80.3 | 6.4 | 3.0 |
| SA45A | SA45CA | 45 | 50.0 | 55.3 | 1.0 | 72.7 | 7.0 | 3.0 |
| SA48 | SA48C | 48 | 53.3 | 65.2 | 1.0 | 85.5 | 6.0 | 3.0 |
| SA48A | SA48CA | 48 | 53.3 | 58.9 | 1.0 | 77.4 | 6.6 | 3.0 |
| SA51 | SA51C | 51 | 56.7 | 69.3 | 1.0 | 91.1 | 5.6 | 3.0 |
| SA51A | SA51CA | 51 | 56.7 | 62.7 | 1.0 | 82.4 | 6.2 | 3.0 |

For Bi-directional type having VRWM of 10 Volts and less, the IR limit is double



AXIAL LEAD TRANSIENT VOLTAGE SUPPRESSORS

SA5.0 - SA440CA

| Type Number | | Reverse Stand-Off Voltage | Breakdown Voltage Min. @I _T | Breakdown Voltage Max. @ I _T | Test Current | Maximum Clamping Voltage @I _{PP} | Peak Pulse Current | Reverse Leakage @V _{RMW} |
|-------------|---------|---------------------------|--|---|---------------------|---|---------------------|-----------------------------------|
| (Uni) | (Bi) | V _{RMW} (V) | V _{BR MIN} (V) | V _{BR MAX} (V) | I _T (mA) | V _C (V) | I _{PP} (A) | I _R (uA) |
| SA54 | SA54C | 54 | 60.0 | 73.3 | 1.0 | 96.3 | 5.3 | 3.0 |
| SA54A | SA54CA | 54 | 60.0 | 66.3 | 1.0 | 87.1 | 5.9 | 3.0 |
| SA58 | SA58C | 58 | 64.4 | 78.7 | 1.0 | 103 | 5.0 | 3.0 |
| SA58A | SA58CA | 58 | 64.4 | 71.2 | 1.0 | 93.6 | 5.4 | 3.0 |
| SA60 | SA60C | 60 | 66.7 | 81.5 | 1.0 | 107 | 4.8 | 3.0 |
| SA60A | SA60CA | 60 | 66.7 | 73.7 | 1.0 | 96.8 | 5.3 | 3.0 |
| SA64 | SA64C | 64 | 71.1 | 86.9 | 1.0 | 114 | 4.5 | 3.0 |
| SA64A | SA64CA | 64 | 71.1 | 78.6 | 1.0 | 103 | 5.0 | 3.0 |
| SA70 | SA70C | 70 | 77.8 | 95.1 | 1.0 | 125 | 4.1 | 3.0 |
| SA70A | SA70CA | 70 | 77.8 | 86.0 | 1.0 | 113 | 4.5 | 3.0 |
| SA75 | SA75C | 75 | 83.0 | 102 | 1.0 | 134 | 3.8 | 3.0 |
| SA75A | SA75CA | 75 | 83.0 | 92.1 | 1.0 | 121 | 4.2 | 3.0 |
| SA78 | SA78C | 78 | 86.0 | 106 | 1.0 | 139 | 3.7 | 3.0 |
| SA78A | SA78CA | 78 | 86.0 | 95.8 | 1.0 | 126 | 4.0 | 3.0 |
| SA85 | SA85C | 85 | 94.0 | 115 | 1.0 | 151 | 3.4 | 3.0 |
| SA85A | SA85CA | 85 | 94.0 | 104 | 1.0 | 137 | 3.7 | 3.0 |
| SA90 | SA90C | 90 | 100 | 122 | 1.0 | 160 | 3.2 | 3.0 |
| SA90A | SA90CA | 90 | 100 | 111 | 1.0 | 146 | 3.3 | 3.0 |
| SA100 | SA100C | 100 | 111 | 136 | 1.0 | 179 | 2.8 | 3.0 |
| SA100A | SA100CA | 100 | 111 | 123 | 1.0 | 162 | 3.1 | 3.0 |
| SA110 | SA110C | 110 | 122 | 149 | 1.0 | 196 | 2.6 | 3.0 |
| SA110A | SA110CA | 110 | 122 | 135 | 1.0 | 177 | 2.9 | 3.0 |
| SA120 | SA120C | 120 | 133 | 163 | 1.0 | 214 | 2.4 | 3.0 |
| SA120A | SA120CA | 120 | 133 | 147 | 1.0 | 193 | 2.6 | 3.0 |
| SA130 | SA130C | 130 | 144 | 176 | 1.0 | 231 | 2.2 | 3.0 |
| SA130A | SA130CA | 130 | 144 | 159 | 1.0 | 209 | 2.4 | 3.0 |
| SA150 | SA150C | 150 | 167 | 204 | 1.0 | 268 | 1.9 | 3.0 |
| SA150A | SA150CA | 150 | 167 | 185 | 1.0 | 243 | 2.1 | 3.0 |
| SA160 | SA160C | 160 | 178 | 218 | 1.0 | 287 | 1.7 | 3.0 |
| SA160A | SA160CA | 160 | 178 | 197 | 1.0 | 259 | 2.0 | 3.0 |
| SA170 | SA170C | 170 | 189 | 231 | 1.0 | 304 | 1.7 | 3.0 |
| SA170A | SA170CA | 170 | 189 | 209 | 1.0 | 275 | 1.9 | 3.0 |
| SA180 | SA180C | 180 | 200 | 244 | 1.0 | 321 | 1.56 | 3.0 |
| SA180A | SA180CA | 180 | 200 | 221 | 1.0 | 290 | 1.73 | 3.0 |
| SA190 | SA190C | 190 | 211 | 258 | 1.0 | 339 | 1.48 | 3.0 |
| SA190A | SA190CA | 190 | 211 | 233 | 1.0 | 306 | 1.64 | 3.0 |

For Bi-directional type having VRWM of 10 Volts and less, the IR limit is double



AXIAL LEAD TRANSIENT VOLTAGE SUPPRESSORS

SA5.0 - SA440CA

| Type Number | | Reverse Stand-Off Voltage | Breakdown Voltage Min. @I _T | Breakdown Voltage Max. @ I _T | Test Current | Maximum Clamping Voltage @I _{PP} | Peak Pulse Current | Reverse Leakage @V _{RMW} |
|-------------|---------|---------------------------|--|---|---------------------|---|---------------------|-----------------------------------|
| (Uni) | (Bi) | V _{RMW} (V) | V _{BR MIN} (V) | V _{BR MAX} (V) | I _T (mA) | V _C (V) | I _{PP} (A) | I _R (uA) |
| SA200 | SA200C | 200 | 222 | 271 | 1.0 | 356 | 1.41 | 3.0 |
| SA200A | SA200CA | 200 | 222 | 245 | 1.0 | 322 | 1.56 | 3.0 |
| SA210 | SA210C | 210 | 233 | 285 | 1.0 | 375 | 1.34 | 3.0 |
| SA210A | SA210CA | 210 | 233 | 258 | 1.0 | 339 | 1.48 | 3.0 |
| SA220 | SA220C | 220 | 244 | 298 | 1.0 | 392 | 1.29 | 3.0 |
| SA220A | SA220CA | 220 | 244 | 270 | 1.0 | 355 | 1.42 | 3.0 |
| SA250 | SA250C | 250 | 278 | 340 | 1.0 | 447 | 1.13 | 3.0 |
| SA250A | SA250CA | 250 | 278 | 307 | 1.0 | 403 | 1.25 | 3.0 |
| SA300 | SA300C | 300 | 333 | 407 | 1.0 | 535 | 0.94 | 3.0 |
| SA300A | SA300CA | 300 | 333 | 368 | 1.0 | 484 | 1.04 | 3.0 |
| SA350 | SA350C | 350 | 389 | 475 | 1.0 | 624 | 0.81 | 3.0 |
| SA350A | SA350CA | 350 | 389 | 430 | 1.0 | 565 | 0.89 | 3.0 |
| SA400 | SA400C | 400 | 444 | 523 | 1.0 | 687 | 0.74 | 3.0 |
| SA400A | SA400CA | 400 | 444 | 491 | 1.0 | 645 | 0.79 | 3.0 |
| SA440 | SA440C | 440 | 489 | 598 | 1.0 | 786 | 0.65 | 3.0 |
| SA440A | SA440CA | 440 | 489 | 540 | 1.0 | 710 | 0.71 | 3.0 |

For Bi-directional type having VRWM of 10 Volts and less, the IR limit is double