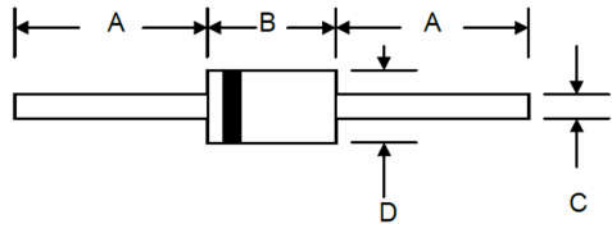


1500W TVS

FEATURES

- Voltage range 6.8V-400V
- 1500W peak pulse power dissipation
- Uni- and bidirectional versions available
- Fast response time



MECHANICAL DATA

- Case: DO-201AD(DO-27)
- Case material: Molded plastic. UL flammability
- Classification rating: 94V-0
- Weight: 1.2 grams (approximate)

| DO-201AD(DO-27) | | |
|----------------------|------|------|
| Dim | Min | Max |
| A | 25.4 | — |
| B | 8.50 | 9.50 |
| C | 0.96 | 1.06 |
| D | 5.0 | 5.60 |
| All Dimensions in mm | | |

Marking:

- Unidirectional - type number and cathode band
- Bidirectional - type number only

MAXIMUM RATINGS AND CHARACTERISTICS ($T_A=25^\circ\text{C}$ unless otherwise specified)

| Parameter | Symbol | Value | Unit | |
|---|-----------------------------------|--------------------------|------------------|---|
| Peak power dissipation at $t_p=1.0\text{ms}$ (non-repetitive current pulse, derated above $T_A = 25^\circ\text{C}$) | Ppk | 1500 | W | |
| Steady state power dissipation at $T_L= 75^\circ\text{C}$ lead lengths 9.5 mm (mounted on copper land area of 20mm^2) | Pd | 6.0 | W | |
| Peak forward surge current, 8.3 single half sine wave superimposed on Rated load (8.3ms single half sine wave, Duty cycle = 4 pulses per minute max.) | I _{FSM} | 200 | A | |
| Forward voltage @ $I_F=50\text{A}$ 300 μs square wave pulse (Unidirectional only) | V _F | $V_{BR}\leq 100\text{V}$ | 3.5 | V |
| | | $V_{BR}>100\text{V}$ | 5.0 | |
| Operating and storage temperature range | T _J , T _{STG} | -55 to +175 | $^\circ\text{C}$ | |

1500W TVS

ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise specified)

| Type number | Type number | Reverse standoff voltage | Breakdown voltage V _{BR} @ I _T | | Test current | Max.reverse leakage @ V _R (Note 1) | Max. clamping voltage @ I _{pp} | Max. peak pulse current | Max. voltage temp.variation of V _{BR} |
|----------------|---------------|--------------------------|--|---------|---------------------|---|---|-------------------------|--|
| | | | V _{RWM} (V) | Min (V) | | | | | |
| Unidirectional | Bidirectional | V _{RWM} (V) | Min (V) | Max (V) | I _T (mA) | I _R (μA) | V _c (V) | I _{PP} (A) | %/°C |
| 1.5KE6V8A | 1.5KE6V8CA | 5.8 | 6.45 | 7.14 | 10 | 1000 | 10.5 | 143 | 0.057 |
| 1.5KE7V5A | 1.5KE7V5CA | 6.4 | 7.13 | 7.88 | 10 | 500 | 11.3 | 132 | 0.061 |
| 1.5KE8V2A | 1.5KE8V2CA | 7.02 | 7.79 | 8.61 | 10 | 200 | 12.1 | 124 | 0.065 |
| 1.5KE9V1A | 1.5KE9V1CA | 7.78 | 8.65 | 9.55 | 1 | 50 | 13.4 | 112 | 0.068 |
| 1.5KE10A | 1.5KE10CA | 8.55 | 9.5 | 10.5 | 1 | 10 | 14.5 | 103 | 0.073 |
| 1.5KE11A | 1.5KE11CA | 9.4 | 10.5 | 11.6 | 1 | 5 | 15.6 | 96 | 0.075 |
| 1.5KE12A | 1.5KE12CA | 10.2 | 11.4 | 12.6 | 1 | 5 | 16.7 | 90 | 0.078 |
| 1.5KE13A | 1.5KE13CA | 11.1 | 12.4 | 13.7 | 1 | 5 | 18.2 | 82 | 0.081 |
| 1.5KE15A | 1.5KE15CA | 12.8 | 14.3 | 15.8 | 1 | 5 | 21.2 | 71 | 0.084 |
| 1.5KE16A | 1.5KE16CA | 13.6 | 15.2 | 16.8 | 1 | 5 | 22.5 | 67 | 0.086 |
| 1.5KE18A | 1.5KE18CA | 15.3 | 17.1 | 18.9 | 1 | 5 | 25.2 | 59.5 | 0.088 |
| 1.5KE20A | 1.5KE20CA | 17.1 | 19 | 21 | 1 | 5 | 27.7 | 54 | 0.09 |
| 1.5KE22A | 1.5KE22CA | 18.8 | 20.9 | 23.1 | 1 | 5 | 30.6 | 49 | 0.092 |
| 1.5KE24A | 1.5KE24CA | 20.5 | 22.8 | 25.2 | 1 | 5 | 33.2 | 45 | 0.094 |
| 1.5KE27A | 1.5KE27CA | 23.1 | 25.7 | 28.4 | 1 | 5 | 37.5 | 40 | 0.096 |
| 1.5KE30A | 1.5KE30CA | 25.6 | 28.5 | 31.5 | 1 | 5 | 41.4 | 36 | 0.097 |
| 1.5KE33A | 1.5KE33CA | 28.2 | 31.4 | 34.7 | 1 | 5 | 45.7 | 33 | 0.098 |
| 1.5KE36A | 1.5KE36CA | 30.8 | 34.2 | 37.8 | 1 | 5 | 49.9 | 30 | 0.099 |
| 1.5KE39A | 1.5KE39CA | 33.3 | 37.1 | 41 | 1 | 5 | 53.9 | 28 | 0.1 |
| 1.5KE43A | 1.5KE43CA | 36.8 | 40.9 | 45.2 | 1 | 5 | 59.3 | 25.3 | 0.101 |
| 1.5KE47A | 1.5KE47CA | 40.2 | 44.7 | 49.4 | 1 | 5 | 64.8 | 23.2 | 0.101 |
| 1.5KE51A | 1.5KE51CA | 43.6 | 48.5 | 53.6 | 1 | 5 | 70.1 | 21.4 | 0.102 |
| 1.5KE56A | 1.5KE56CA | 47.8 | 53.2 | 58.8 | 1 | 5 | 77 | 19.5 | 0.103 |
| 1.5KE62A | 1.5KE62CA | 53 | 58.9 | 65.1 | 1 | 5 | 85 | 17.7 | 0.104 |
| 1.5KE68A | 1.5KE68CA | 58.1 | 64.6 | 71.4 | 1 | 5 | 92 | 16.3 | 0.104 |
| 1.5KE75A | 1.5KE75CA | 64.1 | 71.3 | 78.8 | 1 | 5 | 103 | 14.6 | 0.105 |
| 1.5KE82A | 1.5KE82CA | 70.1 | 77.9 | 86.1 | 1 | 5 | 113 | 13.3 | 0.105 |
| 1.5KE91A | 1.5KE91CA | 77.8 | 86.5 | 95.5 | 1 | 5 | 125 | 12 | 0.106 |
| 1.5KE100A | 1.5KE100CA | 85.5 | 95 | 105 | 1 | 5 | 137 | 11 | 0.106 |
| 1.5KE110A | 1.5KE110CA | 94 | 105 | 116 | 1 | 5 | 152 | 9.9 | 0.107 |
| 1.5KE120A | 1.5KE120CA | 102 | 114 | 126 | 1 | 5 | 165 | 9.1 | 0.107 |
| 1.5KE130A | 1.5KE130CA | 111 | 124 | 137 | 1 | 5 | 179 | 8.4 | 0.107 |
| 1.5KE150A | 1.5KE150CA | 128 | 143 | 158 | 1 | 5 | 207 | 7.2 | 0.108 |
| 1.5KE160A | 1.5KE160CA | 136 | 152 | 168 | 1 | 5 | 219 | 6.8 | 0.108 |
| 1.5KE170A | 1.5KE170CA | 145 | 162 | 179 | 1 | 5 | 234 | 6.4 | 0.108 |
| 1.5KE180A | 1.5KE180CA | 154 | 171 | 189 | 1 | 5 | 246 | 6.1 | 0.108 |
| 1.5KE200A | 1.5KE200CA | 171 | 190 | 210 | 1 | 5 | 274 | 5.5 | 0.108 |
| 1.5KE220A | 1.5KE220CA | 185 | 209 | 231 | 1 | 5 | 328 | 4.6 | 0.108 |
| 1.5KE250A | 1.5KE250CA | 214 | 237 | 263 | 1 | 5 | 344 | 5 | 0.11 |
| 1.5KE300A | 1.5KE300CA | 256 | 285 | 315 | 1 | 5 | 414 | 5 | 0.11 |
| 1.5KE350A | 1.5KE350CA | 300 | 332 | 368 | 1 | 5 | 482 | 4 | 0.11 |
| 1.5KE400A | 1.5KE400CA | 342 | 380 | 420 | 1 | 5 | 548 | 4 | 0.11 |

Note:

1.For bi-directional devices having V_R of 10 volts and under, the I_R limit is doubled.

Typical Characteristics

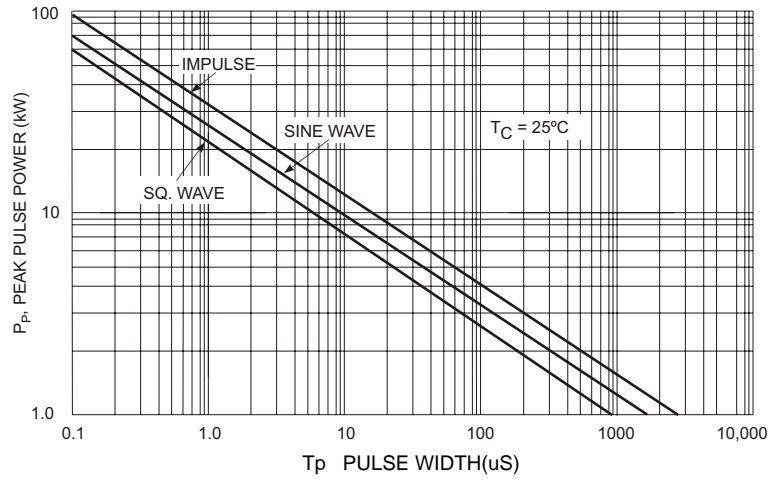


Fig.1 Pulse Rating Curve

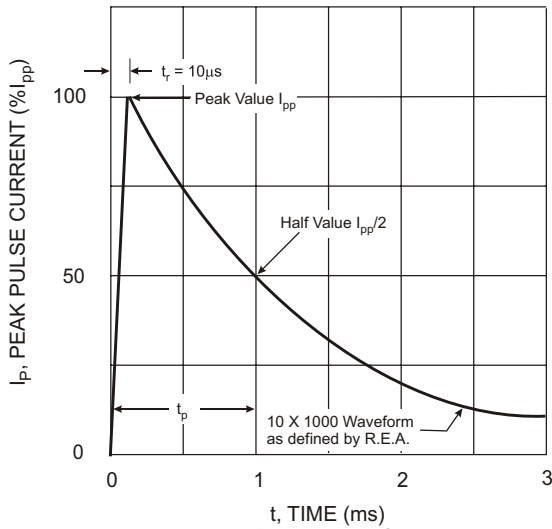


Fig.2 PulseWaveform

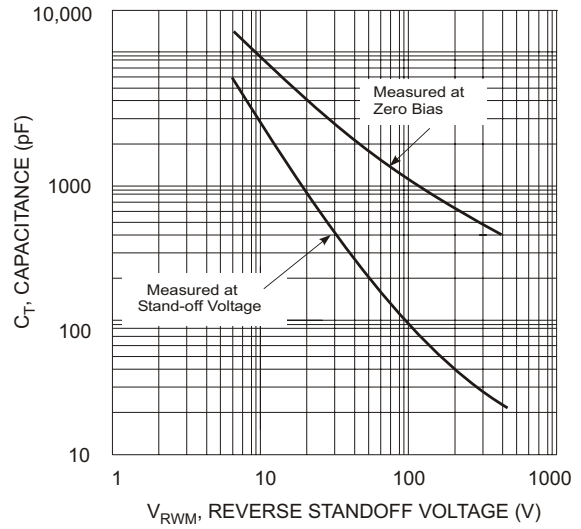


Fig.3 Typical Total Capacitance

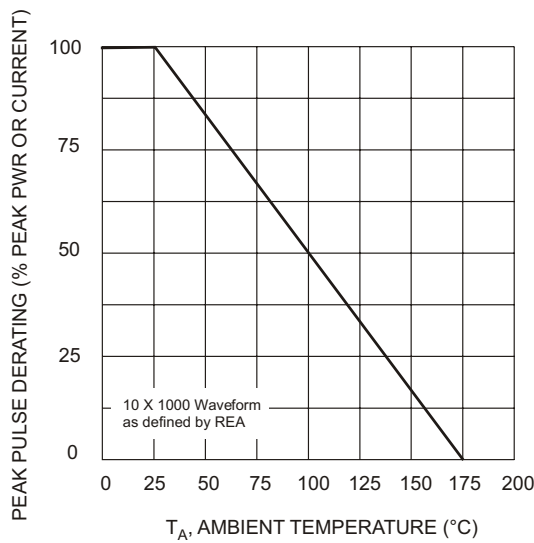


Fig.4 Pulse Derating Curve

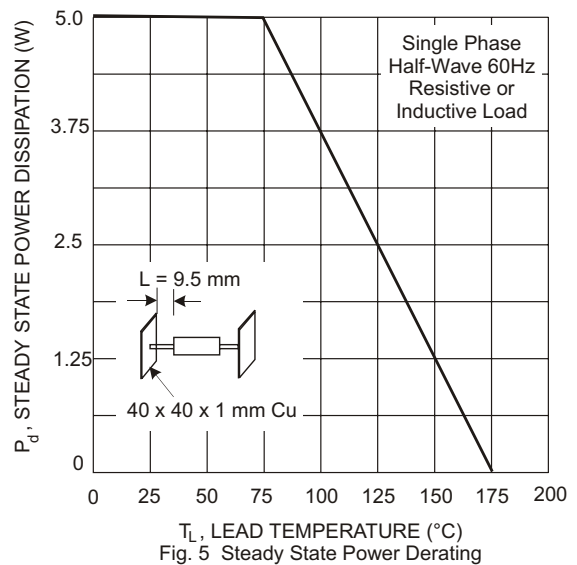


Fig.5 Steady State Power Derating