

300W Transient Voltage Suppressor

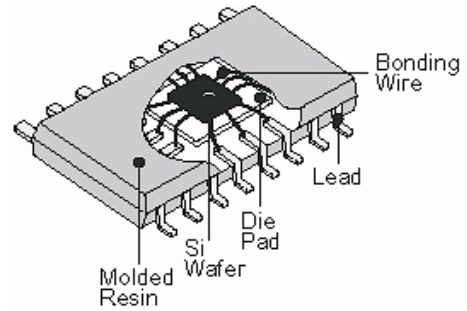
CT Series -G RoHS Device

Features

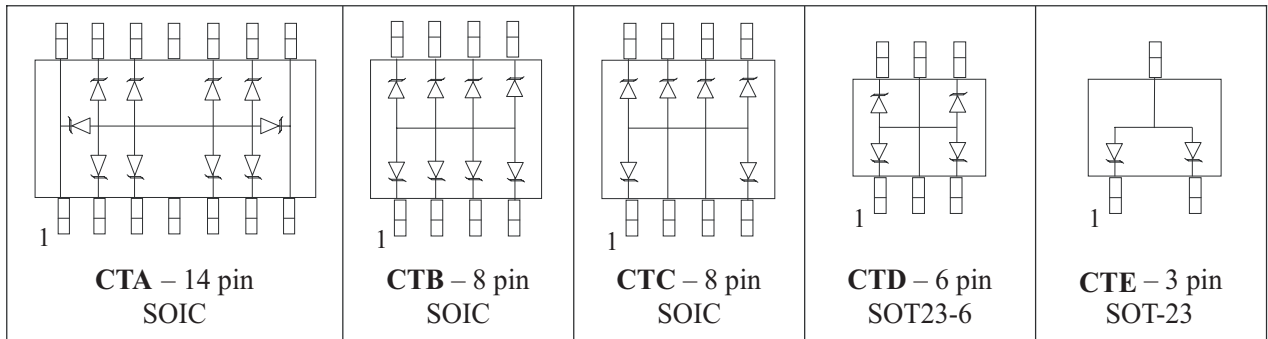
- (16kV) IEC 61000-4-2 rating.
- 8/20 μ S transient rated.
- Six working voltages (3.3, 5, 12, 24).

Applications

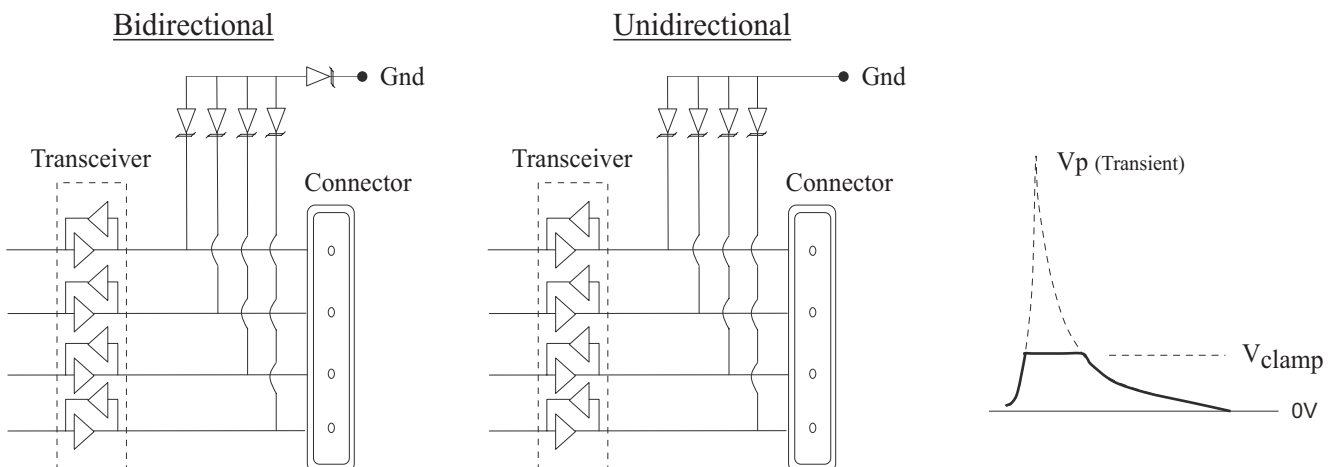
- Transient / ESD suppression.
- LAN/WAN.
- Peripherals.
- Set-Top Boxes.



Circuit Schematic



Application Schematic



300W Transient Voltage Suppressor

Maximum Ratings and Electrical Characteristics

Specifications: (Ta=25°C)

| Rating | Symbol | Value | Units |
|---------------------------|-----------------|----------------|-------|
| Peak pulse power (8/20μS) | P _{PK} | 300 | Watts |
| Operating Temp. range | T _J | -55 to +125 °C | °C |
| Soldering temperature | T _L | 260 (10sec) | °C |

3.3V Volt Characteristics (3V3)

| Symbol | Characteristics | Min | Max | Units | Test Conditions |
|-----------------|---------------------------|-----|-----|-------|------------------------|
| V _{BD} | Reverse breakdown voltage | 4.0 | | V | I _F =1mA |
| I _L | Reverse leakage current | | 50 | μA | @V _{BD} =3.3V |
| C _T | Capacitance | | 350 | pF | @1MHz |
| V _C | Channel clamp voltage | | 8 | V | 8/20μS, 1A |
| I _{PP} | Peak pulse current | | 17 | A | 8/20μS |

5V Volt Characteristics (5V0)

| Symbol | Characteristics | Min | Max | Units | Test Conditions |
|-----------------|---------------------------|-----|-----|-------|----------------------|
| V _{BD} | Reverse breakdown voltage | 6.0 | | V | I _F =1mA |
| I _L | Reverse leakage current | | 10 | μA | @V _{BD} =5V |
| C _T | Capacitance | | 350 | pF | @1MHz |
| V _C | Channel clamp voltage | | 10 | V | 8/20μS, 1A |
| I _{PP} | Peak pulse current | | 17 | A | 8/20 μ S |

12V Volt Characteristics (12V)

| Symbol | Characteristics | Min | Max | Units | Test Conditions |
|-----------------|---------------------------|------|-----|-------|-----------------------|
| V _{BD} | Reverse breakdown voltage | 13.3 | | V | I _F =1mA |
| I _L | Reverse leakage current | | 1 | μA | @V _{BD} =12V |
| C _T | Capacitance | | 120 | pF | @1MHz |
| V _C | Channel clamp voltage | | 20 | V | 8/20μS, 1A |
| I _{PP} | Peak pulse current | | 12 | A | 8/20 μ S |

24V Volt Characteristics (24V)

| Symbol | Characteristics | Min | Max | Units | Test Conditions |
|-----------------|---------------------------|------|-----|-------|-----------------------|
| V _{BD} | Reverse breakdown voltage | 26.7 | | V | I _F =1mA |
| I _L | Reverse leakage current | | 1 | μA | @V _{BD} =24V |
| C _T | Capacitance | | 50 | pF | @1MHz |
| V _C | Channel clamp voltage | | 43 | V | 8/20μS, 1A |
| I _{PP} | Peak pulse current | | 5 | A | 8/20 μ S |

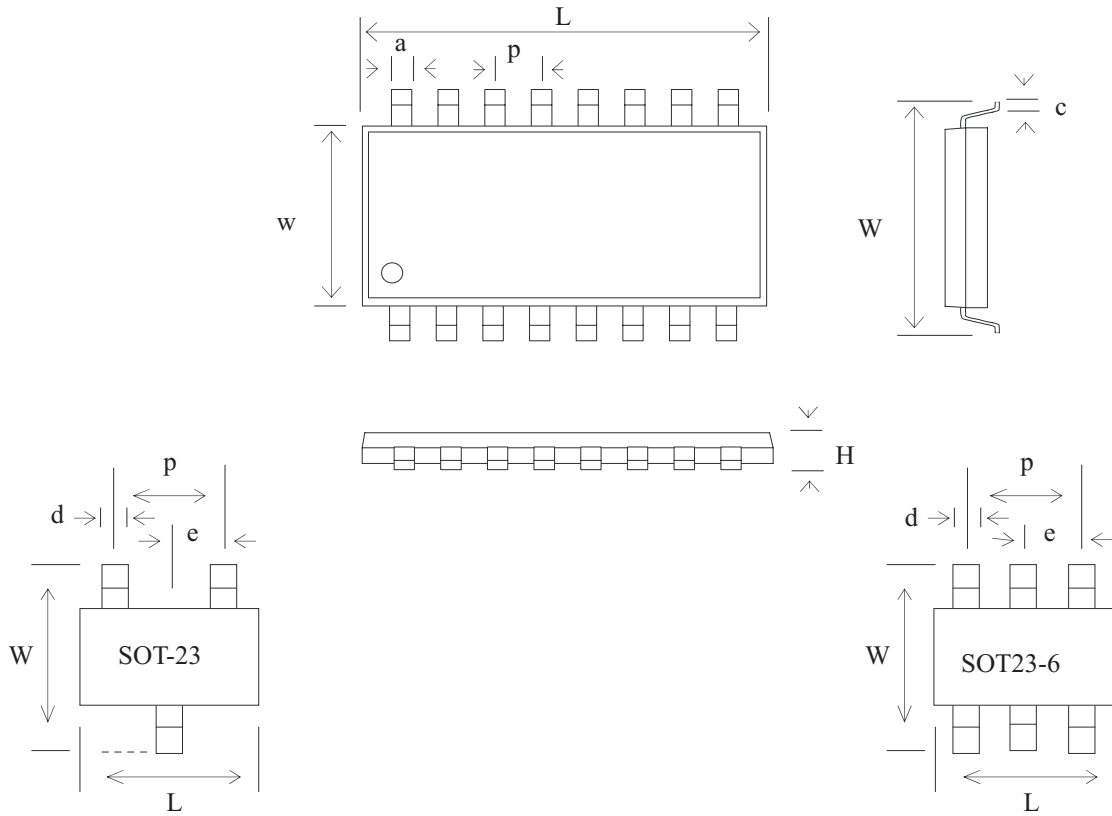
Ordering Information:

| | | | |
|-------------|---------------------|----------------|-----------------------|
| CTA | N14 | 24V | -G |
| Type | Package Code | Voltage | RoHS compliant |
| CTA | From table below | 3V3 | |
| CTB | | 5V0 | |
| CTC | | 12V | |
| CTD | | 24V | |
| CTE | | | |

300W Transient Voltage Suppressor

Package Information:

Dimensions in (mm)



| Package Code | Package Power | Number of Pins | L ± 0.2 | W ± 0.2 | w ± 0.2 | p ± 0.2 | e ± 0.1 | A ± 0.1 | d ± 0.1 | H ± 0.2 |
|--------------|---------------|----------------|---------|---------|---------|---------|---------|---------|---------|---------|
| N08 | 0.4W | 8 | 4.83 | 5.99 | 3.81 | 1.60 | 1.27 | 0.41 | 0.66 | 0.95 |
| N14 | 0.6W | 14 | 8.66 | 5.99 | 3.81 | 1.60 | 1.27 | 0.41 | 0.66 | 0.95 |
| S03 | 0.225W | 3 | 2.92 | 2.30 | 0.95 | 1.91 | 0.95 | 0.53 | 0.43 | 0.95 |
| S06 | 0.225W | 6 | 2.92 | 2.80 | 1.20 | 1.91 | 0.95 | 0.53 | 0.43 | 0.95 |

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