

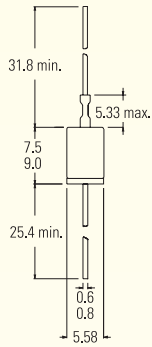


1N5629 - 1N5665A  
Series



**CRYDOM**

Control over power



All dimensions in mm

**Invisible Protection**

*When no problems exist, Crydom TVS Diodes are totally invisible to the circuits they're protecting. But when potentially damaging transients occur, they provide high-speed "clamping" to prevent damage – and then return to their electronically invisible state.*

**1N56 SERIES (1500 WATT) METAL AXIAL TRANSIENT VOLTAGE SUPPRESSORS (hermetically sealed package for harsh industrial environments)**

**FEATURES**

- Glass passivated junction
- Stand-off voltage range: 6.8-200 V
- Excellent clamping capability
- Low zener impedance
- 100% surge tested
- -65°C to +175°C
- Hermetically sealed
- Uni-polar

**MAXIMUM RATINGS**

- Peak pulse power (PPK): 1500 watts (10 X 1000  $\mu$ s)
- 1 watt steady state
- Response time: 1 X 10<sup>-12</sup> s (theoretical)
- Operating and storage temperature: -55°C to +175°C

**MECHANICAL CHARACTERISTICS**

- Case: Metal hermetically sealed DO-13 package
- Terminals: Axial leads, solderable per MIL-STD-202 Method 208
- Polarity: Cathode indicated by color band
- Weight: 1.5 grams (approx.)

## Transient Voltage Suppression (TVS) Diodes

### 1N5629 – 1N5665A Series

PART NUMBER	REVERSE STAND-OFF VOLTAGE V <sub>R</sub> (V)	BREAKDOWN VOLTAGE V <sub>BR</sub> (V) @ I <sub>T</sub>			MAXIMUM REVERSE LEAKAGE I <sub>R</sub> @ V <sub>R</sub> (μA)	MAXIMUM CLAMPING VOLTAGE V <sub>C</sub> @ I <sub>PP</sub> (V)	MAXIMUM PEAK PULSE CURRENT I <sub>PP</sub> (A)	MAX. VOLTAGE TEMPERATURE VARIATION OF V <sub>BR</sub> (mV/°C)
		MIN.	MAX.	(mA)				
*1N5629	5.5	6.12	7.48	10.0	1000.0	10.8	139.0	5.0
*1N5629A	5.8	6.45	7.14	10.0	1000.0	10.5	143.0	5.0
*1N5630	6.05	6.75	8.25	10.0	500.0	11.7	128.0	5.0
*1N5630A	6.4	7.13	7.88	10.0	500.0	11.3	132.0	5.0
1N5631	6.63	7.38	9.02	10.0	200.0	12.5	120.0	6.0
1N5631A	7.02	7.79	8.61	10.0	200.0	12.1	124.0	6.0
1N5632	7.37	8.19	10.0	1.0	50.0	13.8	109.0	7.0
1N5632A	7.78	8.65	9.55	1.0	50.0	13.4	112.0	7.0
1N5633	8.1	9.0	11.0	1.0	10.0	15.0	100.0	8.0
1N5633A	8.55	9.5	10.5	1.0	10.0	14.5	103.0	8.0
1N5634	8.92	9.9	12.1	1.0	5.0	16.2	93.0	9.0
1N5634A	9.4	10.5	11.6	1.0	5.0	15.6	96.0	9.0
1N5635	9.72	10.8	13.2	1.0	5.0	17.3	87.0	10.0
1N5635A	10.2	11.4	12.6	1.0	5.0	16.7	90.0	10.0
*1N5636	10.5	11.7	14.3	1.0	5.0	19.0	79.0	11.0
*1N5636A	11.1	12.4	13.7	1.0	5.0	18.2	82.0	11.0
1N5637	12.1	13.5	16.5	1.0	5.0	22.0	68.0	13.0
1N5637A	12.8	14.3	15.8	1.0	5.0	21.2	71.0	12.0
*1N5638	12.9	14.4	17.6	1.0	5.0	23.5	64.0	16.0
*1N5638A	13.6	15.2	16.8	1.0	5.0	22.5	67.0	14.0
*1N5639	14.5	16.2	19.8	1.0	5.0	26.5	56.5	17.0
*1N5639A	15.3	17.1	18.9	1.0	5.0	25.2	59.5	19.0
*1N5640	16.2	18.0	22.0	1.0	5.0	29.1	51.5	20.0
*1N5640A	17.1	19.0	21.0	1.0	5.0	27.7	54.0	19.0
1N5641	17.8	19.8	24.2	1.0	5.0	31.9	47.0	21.0
1N5641A	18.8	20.9	23.1	1.0	5.0	30.6	49.0	20.0
1N5642	19.4	21.6	26.4	1.0	5.0	34.7	43.0	25.0
1N5642A	20.5	22.8	25.2	1.0	5.0	33.2	45.0	23.0
*1N5643	21.8	24.3	29.7	1.0	5.0	39.1	38.5	28.0
*1N5643A	23.1	25.7	28.4	1.0	5.0	37.5	40.0	25.0
*1N5644	24.3	27.0	33.0	1.0	5.0	43.5	34.5	31.0
*1N5644A	25.6	28.5	31.5	1.0	5.0	41.4	36.0	28.0
*1N5645	26.8	29.7	36.3	1.0	5.0	47.7	31.5	31.0
*1N5645A	28.2	31.4	34.7	1.0	5.0	45.7	33.0	30.0
1N5646	29.1	32.4	39.6	1.0	5.0	52.0	29.0	35.0
1N5646A	30.8	34.2	37.8	1.0	5.0	49.9	30.0	31.0
*1N5647	31.6	35.1	42.9	1.0	5.0	56.4	26.5	39.0

\*Preferred voltages.

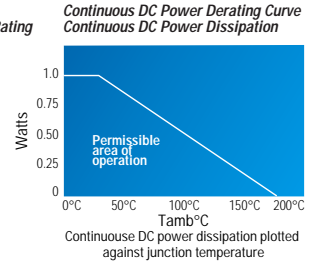
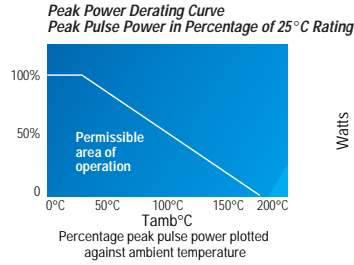
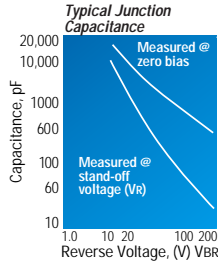
Note: Suffix "A" denotes 5% tolerance device. No suffix denotes 10% tolerance device. 1N5629 to 1N5647A V<sub>R</sub> max. = 3.5 V at I<sub>R</sub> = 50 A 300 μs square wave pulse. 1N5648 to 1N5665A V<sub>R</sub> max. = 5.0 V at I<sub>R</sub> = 50 A 300 μs square wave pulse. Electrical specifications @ 25°C.

1N5629 – 1N5665A Series 

PART NUMBER	REVERSE STAND-OFF VOLTAGE V <sub>R</sub> (V)	BREAKDOWN VOLTAGE V <sub>BR</sub> (V) @ I <sub>T</sub>			MAXIMUM REVERSE LEAKAGE I <sub>R</sub> @ V <sub>R</sub> (μA)	MAXIMUM CLAMPING VOLTAGE V <sub>C</sub> @ I <sub>PP</sub> (V)	MAXIMUM PEAK PULSE CURRENT I <sub>PP</sub> (A)	MAX. VOLTAGE TEMPERATURE VARIATION OF V <sub>BR</sub> (mV/°C)
		MIN.	MAX.	(mA)				
*1N5647A	33.3	37.1	41.0	1.0	5.0	53.9	28.0	36.0
1N5648	34.8	38.7	47.3	1.0	5.0	61.9	24.0	46.0
1N5648A	36.8	40.9	45.2	1.0	5.0	59.3	25.3	44.0
*1N5649	38.1	42.3	51.7	1.0	5.0	67.8	22.2	50.0
*1N5649A	40.2	44.7	49.4	1.0	5.0	64.8	23.2	48.0
1N5650	41.3	45.9	56.1	1.0	5.0	73.5	20.4	55.0
1N5650A	43.6	48.5	53.6	1.0	5.0	70.1	21.4	51.0
1N5651	45.4	50.4	61.6	1.0	5.0	80.5	18.6	58.0
1N5651A	47.8	53.2	58.8	1.0	5.0	77.0	19.5	56.0
1N5652	50.2	55.8	68.2	1.0	5.0	89.0	16.9	65.0
1N5652A	53.0	58.9	65.1	1.0	5.0	85.0	17.7	62.0
*1N5653	55.1	61.2	74.8	1.0	5.0	98.0	15.3	71.0
*1N5653A	58.1	64.6	71.4	1.0	5.0	92.0	16.3	69.0
*1N5654	60.7	67.5	82.5	1.0	5.0	108.0	13.9	80.0
*1N5654A	64.1	71.3	78.8	1.0	5.0	103.0	14.6	76.0
1N5655	66.4	73.8	90.2	1.0	5.0	118.0	12.7	90.0
1N5655A	70.1	77.9	86.1	1.0	5.0	113.0	13.3	86.0
1N5656	73.7	81.9	100.0	1.0	5.0	131.0	11.4	99.0
1N5656A	77.8	86.5	95.5	1.0	5.0	125.0	12.0	94.0
1N5657	81.0	90.0	110.0	1.0	5.0	144.0	10.4	109.0
1N5657A	85.5	95.0	105.0	1.0	5.0	137.0	11.0	104.0
1N5658	89.2	99.0	121.0	1.0	5.0	158.0	9.5	120.0
1N5658A	94.0	105.0	116.0	1.0	5.0	152.0	9.9	115.0
1N5659	97.2	108.0	132.0	1.0	5.0	173.0	8.7	131.0
1N5659A	102.0	114.0	126.0	1.0	5.0	165.0	9.1	125.0
*1N5660	105.0	117.0	143.0	1.0	5.0	187.0	8.0	142.0
*1N5660A	111.0	124.0	137.0	1.0	5.0	179.0	8.4	136.0
1N5661	121.0	135.0	165.0	1.0	5.0	215.0	7.0	164.0
1N5661A	128.0	143.0	158.0	1.0	5.0	207.0	7.2	157.0
1N5662	130.0	144.0	176.0	1.0	5.0	230.0	6.5	175.0
1N5662A	136.0	152.0	168.0	1.0	5.0	219.0	6.8	167.0
1N5663	138.0	153.0	187.0	1.0	5.0	244.0	6.2	186.0
1N5663A	145.0	162.0	179.0	1.0	5.0	234.0	6.4	188.0
*1N5664	146.0	162.0	198.0	1.0	5.0	258.0	5.8	197.0
*1N5664A	154.0	171.0	189.0	1.0	5.0	246.0	6.1	188.0
*1N5665	162.0	180.0	220.0	1.0	5.0	287.0	5.2	219.0
*1N5665A	171.0	190.0	210.0	1.0	5.0	274.0	5.5	209.0



## 1N5629 - 1N5665A Series



### Specify Crydom

...for these industry-leading components and products:

- **Solid State Relays**
  - Printed Circuit Board Mount
  - Panel Mount
  - DIN Rail Mount
- **Power Cubes**
- **I/O Modules**
- **Transient Voltage Suppression Components**
  - TVS Diodes
  - Thyristor Suppression Devices
  - Gas Discharge Tubes (GDT)
  - Zeners/Studs
  - Hybrid Arrester Devices

### Ordering Information

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Technical support: 1-877-702-7700

Corporate Headquarters: 1-619-715-7200

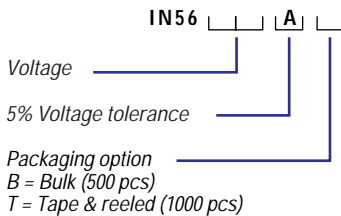
Fax: 1-619-715-7280

E-mail: [sales@crydom.com](mailto:sales@crydom.com)

Website: [www.crydom.com](http://www.crydom.com)

### About Crydom

Over the years Crydom has become the supplier of choice for advanced, high-quality products like those featured here. It's the result of our teams of design and production engineers – material, production control, and quality assurance experts, and more – working seamlessly together to create, produce, and deliver superior components and products that satisfy the most demanding environmental and performance requirements. We focus on timely delivery and competitive pricing aimed at meeting your needs and helping you succeed in today's fast-paced, fast-changing global markets.



FASTFAX Product Info: 1-888-267-9191

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