

**TECHNICAL DATA  
DATA SHEET 5363, REV -**

### 1500W Transient Voltage Suppressor Diode Chip/Die

- Operating and Storage Temperature: -55°C to +175°C

SERIES TYPE	MIN BREAKDOWN VOLTAGE $V_{(BR)}$ @ $I_{(BR)}$		WORKING PEAK REVERSE VOLTAGE $V_{RWM}$	MAXIMUM REVERSE CURRENT $I_{R1}$	MAX. CLAMP. VOLTAGE $V_C$ @ $I_P$ $t_p = 1ms$	MAX. PEAK PULSE CURRENT $I_P$	MAX. TEMP. COEFFICIENT $V_{(BR)}$
	Vdc	mA dc					
1500W	Vdc	mA dc	Vdc	$\mu A_{dc}$	V(pk)	A(pk)	% / °C
1C6139A	7.13	175	5.7	50	11.2	44.6	.06
1C6140	7.38	150	6.2	20	12.7	39.0	.06
1C6140A	7.79	150	6.2	20	12.1	41.3	.06
1C6141	8.19	150	6.9	20	14	35.7	0.06
1C6141A	8.65	150	6.9	20	13.4	37.3	0.06
1C6142	9	125	7.6	20	15.2	32.9	0.07
1C6142A	9.5	125	7.6	20	14.5	34.5	0.07
1C6143	9.9	125	8.4	20	16.3	30.7	0.07
1C6143A	10.45	125	8.4	20	15.6	32.0	0.07
1C6144	10.8	100	9.1	20	17.7	28.2	0.07
1C6144A	11.4	100	9.1	20	16.9	29.6	0.07
1C6145	11.7	100	9.9	20	19	26.3	0.08
1C6145A	12.35	100	9.9	20	18.2	27.5	0.08
1C6146	13.5	75	11.4	20	21.9	22.8	0.08
1C6146A	14.25	75	11.4	20	21	23.8	0.08
1C6147	14.4	75	12.2	20	23.4	21.4	0.08
1C6147A	15.2	75	12.2	20	22.3	22.4	0.08
1C6148	16.2	65	13.7	1	26.3	19.0	0.085
1C6148A	17.1	65	13.7	1	25.1	19.9	0.085
1C6149	18	65	15.2	1	29	17.2	0.085
1C6149A	19	65	15.2	1	27.7	18.0	0.085
1C6150	19.8	50	16.7	1	31.9	15.7	0.085
1C6150A	20.9	50	16.7	1	30.5	16.4	0.085
1C6151	21.6	50	18.2	1	34.8	14.4	0.09
1C6151A	22.8	50	18.2	1	33.3	15.0	0.09
1C6152	24.3	50	20.6	1	39.2	12.8	0.09
1C6152A	25.7	50	20.6	1	37.4	13.4	0.09
1C6153	27	40	22.8	1	43.6	11.5	0.09
1C6153A	28.5	40	22.8	1	41.6	12.0	0.09
1C6154	29.7	40	25.1	1	47.9	10.4	0.095
1C6154A	31.4	40	25.1	1	45.7	10.9	0.095
1C6155	32.4	30	27.4	1	52.3	9.6	0.095
1C6155A	34.2	30	27.4	1	49.9	10.0	0.095
1C6156	35.1	30	29.7	1	56.2	8.9	0.095
1C6156A	37.1	30	29.7	1	53.6	9.3	0.095
1C6157	38.7	30	32.7	1	62	8.1	0.095
1C6157A	40.9	30	32.7	1	59.1	8.5	0.095
1C6158	42.3	25	35.8	1	67.7	7.4	0.095
1C6158A	44.7	25	35.8	1	64.6	7.7	0.095
1C6159	45.9	25	38.8	1	73.5	6.8	0.095
1C6159A	48.5	25	38.8	1	70.1	7.1	0.095
1C6160	50.4	20	42.6	1	80.7	6.2	0.095
1C6160A	53.2	20	42.6	1	77	6.5	0.095

## SENSITRON

## TECHNICAL DATA

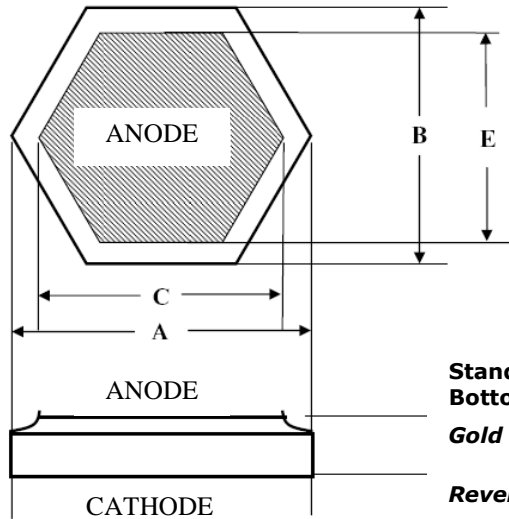
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SERIES TYPE	MIN BREAKDOWN VOLTAGE $V_{(BR)}$ @ $I_{(BR)}$		WORKING PEAK REVERSE VOLTAGE $V_{RWM}$	MAXIMUM REVERSE CURRENT $I_{R1}$	MAX. CLAMP. VOLTAGE $V_C$ @ $I_P$ $t_p = 1ms$	MAX. PEAK PULSE CURRENT $I_P$	MAX. TEMP. COEFFICIENT $V_{(BR)}$
	Vdc	mA dc					
1500W	Vdc	mA dc	Vdc	$\mu A_{dc}$	V(pk)	A(pk)	% / °C
1C6161	55.8	20	47.1	1	89.3	5.6	0.1
1C6161A	58.9	20	47.1	1	85.3	5.9	0.1
1C6162	61.2	20	51.7	1	98	5.1	0.1
1C6162A	64.6	20	51.7	1	97.1	5.1	0.1
1C6163	67.5	20	56	1	108.1	4.6	0.1
1C6163A	71.3	20	56	1	103.1	4.8	0.1
1C6164	73.8	15	62.2	1	118.2	4.2	0.1
1C6164A	77.9	15	62.2	1	112.8	4.4	0.1
1C6165	81.9	15	69.2	1	131.1	3.8	0.1
1C6165A	86.5	15	69.2	1	125.1	4	0.1
1C6166	90	12	76	1	144.1	3.5	0.1
1C6166A	95	12	76	1	137.6	3.6	0.1
1C6167	99	12	83.6	1	158.5	3.2	0.1
1C6167A	104.5	12	83.6	1	151.3	3.3	0.1
1C6168	108	10	91.2	1	172.9	2.9	0.1
1C6168A	114	10	91.2	1	165.1	3	0.1
1C6169	117	10	98.8	1	187.3	2.7	0.105
1C6169A	123.5	10	98.8	1	178.8	2.8	0.105
1C6170	135	8	114	1	216.2	2.3	0.105
1C6170A	142.5	8	114	1	206.3	2.4	0.105
1C6171	144	8	121.6	1	228.8	2.2	0.105
1C6171A	152	8	121.6	1	218.4	2.3	0.105
1C6172	162	5	136.8	1	257.4	1.9	0.11
1C6172A	171	5	136.8	1	245.7	2	0.11
1C6173	180	5	152	1	286	1.7	0.11
1C6173A	190	5	152	1	273	1.8	0.11

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## PACKAGE DIMENSIONS:



Mechanical Dimensions: inches (mm)

**Standard Metallization:** Top side: Al; 25 kÅ minimum  
**Bottom side:** Ti/Ni/Ag; 30 kÅ minimum

**Gold Option Available for Top and/or Bottom Metallization:**  
 Ti (1.2 kA) / Ni (1.8 kA) / Au (12kA)

**Reversed polarity option available**

	Die Diameter A	Die Flat to Flat B	Metal Diameter C	Metal Flat to Flat E	Die Thickness Z
1500W TVS	0.125 ± 0.003 (3.175 ± 0.076)	0.107 ± 0.003 (2.718 ± 0.076)	0.100 ± 0.003 (2.540 ± 0.076)	0.087 ± 0.003 (2.286 ± 0.076)	0.010 ± 0.001 (0.254 ± 0.025)

## PART ORDERING INFORMATION

**Default part number is Al top, Ag bottom.**

**Add the following suffix for these metal combinations:**

Suffix	Top	Bottom	Part Number
	Al	Ag	1C6162
AG	Al	Au	1C6162AG
BB	Ag	Ag	1C6162BB
BG	Ag	Au	1C6162BG
GG	Au	Au	1C6162GG
GB	Au	Ag	1C6162GB
-R	- Reverse polarity -		1C6162-R
xx-R	-Metallization Option (above) with Reverse Polarity-		1C6162xx-R

A = Ti (0.3 kA) / Al (25 kA)

B = Ti (1.2 kA) / Ni (1.8 kA) / Ag (30kA)

G = Ti (1.2 kA) / Ni (1.8 kA) / Au (12kA) (**TOP**) / Ti (1.2 kA) / Ni (1.8 kA) / Au (4kA) (**BOTTOM**)

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