

semiconductors :: product :: **Transient Voltage Suppressor (TVS)**

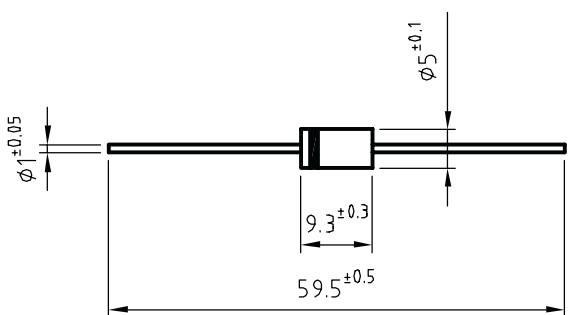

Product: Transient Voltage Suppressor (TVS)

These devices able to absorb high levels of energy in short time pulses without damage, having a very fast response time (<1ps) and an excellent clamping factor are specially suited for protection purposes in application of Automotive, Consumer and Computer sectors.

FAGOR ELECTRONICA offers unidirectional and bidirectional TVS products covering the range from 400W to 5000W, assembled in both leaded and SMD packages.

Product	Family	I _{PP} (A)	V _{CL} (V)	V _Z (V)	P _{PP} (W)	DIREC	OUTLINE
1.5KE36CA-1N6284CA	1.5KE-CA	29	52.0	36	1500W	BIDIREC.	DO201-AE

1500W Unidirectional and Bidirectional Transient Voltage Suppressor Diodes

<p>Dimensions in mm.</p> <p>DO201-AE (PLASTIC)</p>  <p>Mounting instructions</p> <ol style="list-style-type: none"> 1. Min. distance from body to soldering point, 4 mm. 2. Max. solder temperature, 350°C. 3. Max. soldering time, 3.5 sec. 4. Do not bend lead at a point closer than 3 mm. to the body. 	<p>Peak Pulse Power Rating At 1 ms. Exp. 1500 W</p> <p>Reverse stand-off Voltage 5.5 ÷ 376 V</p> 
	<ul style="list-style-type: none"> • Glass passivated junction • Low Capacitance AC signal protection • Response time typically < 1 ns. • Molded case • The plastic material carries U/L recognition 94 V-0 • Terminals: Axial leads

Maximum Ratings, according to IEC publication No. 134

P_{pp}	Peak pulse power with 10/1000 μ s exponential pulse	1500 W
I_{FSM}	Non repetitive surge peak forward current (t = 8.3 msec.) (Jedec Method) (Note 1)	200 A
T_j	Operating temperature range	- 65 to + 175 °C
T_{stg}	Storage temperature range	- 65 to + 175 °C
$P_{M(AV)}$	Steady state Power Dissipation (l = 10 mm)	5 W

Electrical Characteristics at Tamb = 25 °C

V_F	Max. forward voltage drop at $I_F = 100$ A (Note 1)	$V_{BR} < 220$ V $V_{BR} > 220$ V	3.5 V 5.0 V
R_{thj-l}	Max. thermal resistance (l = 10 mm.)		20 °C/W

Note 1: Valid only for Unidirectional.

1500W Unidirectional and Bidirectional Transient Voltage Suppressor Diodes

Type	Maximum Reverse Leakage Current		(1) Breakdown Voltage				I_R (mA)	Max. Clamping Voltage	
	I_{RM} (μ A)	at V_{RM} (V)	Min.	Nom	Max	V_{CL} (V)		at I_{pp} (A)	
1N6267C 1.5KE6V8C	1000	5.50	6.12	6.8	7.48	10	10.8	139	
1N6267CA 1.5KE6V8CA	1000	5.80	6.45	6.8	7.14	10	10.5	143	
1N6268C 1.5KE7V5C	500	6.05	6.75	7.5	8.25	10	11.7	128	
1N6268CA 1.5KE7V5CA	500	6.40	7.13	7.5	7.88	10	11.3	132	
1N6269C 1.5KE8V2C	200	6.63	7.38	8.2	9.02	10	12.5	120	
1N6269CA 1.5KE8V2CA	200	7.02	7.79	8.2	8.61	10	12.1	124	
1N6270C 1.5KE9V1C	50	7.37	8.19	9.1	10.0	1	13.8	109	
1N6270CA 1.5KE9V1CA	50	7.78	8.65	9.1	9.55	1	13.4	112	
1N6271C 1.5KE10C	10	8.10	9.00	10	11.0	1	15.0	100	
1N6271CA 1.5KE10CA	10	8.55	9.50	10	10.5	1	14.5	103	
1N6272C 1.5KE11C	5	8.92	9.90	11	12.1	1	16.2	93	
1N6272CA 1.5KE11CA	5	9.40	10.5	11	11.6	1	15.6	96	
1N6273C 1.5KE12C	5	9.72	10.8	12	13.2	1	17.3	87	
1N6273CA 1.5KE12CA	5	10.2	11.4	12	12.6	1	16.7	90	
1N6274C 1.5KE13C	5	10.5	11.7	13	14.3	1	19.0	79	
1N6274CA 1.5KE13CA	5	11.1	12.4	13	13.7	1	18.2	82	
1N6275C 1.5KE15C	5	12.1	13.5	15	16.5	1	22.0	68	
1N6275CA 1.5KE15CA	5	12.8	14.3	15	15.8	1	21.2	71	
1N6276C 1.5KE16C	5	12.9	14.4	16	17.6	1	23.5	64	
1N6276CA 1.5KE16CA	5	13.6	15.2	16	16.8	1	22.5	67	
1N6277C 1.5KE18C	5	14.5	16.2	18	19.8	1	26.5	56.5	
1N6277CA 1.5KE18CA	5	15.3	17.1	18	18.9	1	25.5	59.5	
1N6278C 1.5KE20C	5	16.2	18.0	20	22.0	1	29.1	51.5	
1N6278CA 1.5KE20CA	5	17.1	19.0	20	21.0	1	27.7	54	
1N6279C 1.5KE22C	5	17.8	19.8	22	24.2	1	31.9	47	
1N6279CA 1.5KE22CA	5	18.8	20.9	22	23.1	1	30.6	49	
1N6280C 1.5KE24C	5	19.4	21.6	24	26.4	1	34.7	43	
1N6280CA 1.5KE24CA	5	20.5	22.8	24	25.2	1	33.2	45	
1N6281C 1.5KE27C	5	21.8	24.3	27	29.7	1	39.1	38.5	
1N6281CA 1.5KE27CA	5	23.1	25.7	27	28.4	1	37.5	40	
1N6282C 1.5KE30C	5	24.3	27.0	30	33.0	1	43.5	34.5	
1N6282CA 1.5KE30CA	5	25.6	28.5	30	31.5	1	41.4	36	
1N6283C 1.5KE33C	5	26.8	29.7	33	36.3	1	47.7	31.5	
1N6283CA 1.5KE33CA	5	28.2	31.4	33	34.7	1	45.7	33	
1N6284C 1.5KE36C	5	29.1	32.4	36	39.6	1	52.0	29	
1N6284CA 1.5KE36CA	5	30.8	34.2	36	37.8	1	49.9	30	
1N6285C 1.5KE39C	5	31.6	35.1	39	42.9	1	56.4	26.5	
1N6285CA 1.5KE39CA	5	33.3	37.1	39	41.0	1	53.9	28	
1N6286C 1.5KE43C	5	34.8	38.7	43	47.3	1	61.9	24	
1N6286CA 1.5KE43CA	5	36.8	40.9	43	45.2	1	59.3	25.3	
1N6287C 1.5KE47C	5	38.1	42.3	47	51.7	1	67.8	22.2	
1N6287CA 1.5KE47CA	5	40.2	44.7	47	49.4	1	64.8	23.2	
1N6288C 1.5KE51C	5	41.3	45.9	51	56.1	1	73.5	20.4	
1N6288CA 1.5KE51CA	5	43.6	48.5	51	53.6	1	70.1	21.4	

(1) Tested with pulses.
Pulse test: t_p - 50 ms; δ < 2%