

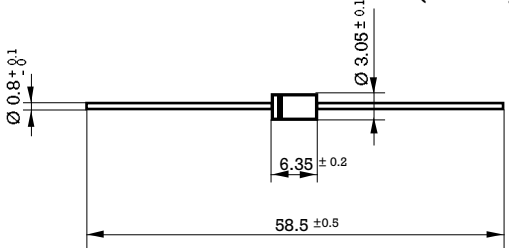

**Product: Transient Voltage Suppressor (TVS)**

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 <sub>pp</sub> (A)	V <sub>CL</sub> (V)	V <sub>Z</sub> (V)	P <sub>pp</sub> (W)	DIREC	OUTLINE
<a href="#">BZW06-33(39v)</a>	BZW06	11.1	53.9	39	600W	UNIDIREC.	DO-15

## 600 W Unidirectional and Bidirectional Transient Voltage Suppressor Diodes

<p><b>Dimensions in mm.</b></p> <div style="text-align: right; margin-bottom: 10px;"><b>DO-15 (Plastic)</b></div>  <p><b>Mounting instructions</b></p> <ol style="list-style-type: none"> <li>1. Min. distance from body to soldering point, 4 mm.</li> <li>2. Max. solder temperature, 350 °C.</li> <li>3. Max. soldering time, 3.5 sec.</li> <li>4. Do not bend lead at a point closer than 2 mm. to the body.</li> </ol>	<table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none; vertical-align: top;"> <p><b>Peak Pulse Power Rating At 1 ms. Exp. 600 W</b></p> </td> <td style="width: 50%; border: none; vertical-align: top;"> <p><b>Reverse stand-off Voltage 5.8 ÷ 376 V</b></p> </td> </tr> </table> <div style="text-align: center; margin: 10px 0;">  </div> <ul style="list-style-type: none"> <li>• <b>Glass passivated junction</b></li> <li>• Low Capacitance AC signal protection</li> <li>• Response time typically &lt; 1 ns.</li> <li>• Molded case</li> <li>• The plastic material carries U/L recognition 94 V-0</li> <li>• Terminals: Axial leads</li> <li>• Polarity: Color band denotes Cathode except bidirectional types</li> </ul>	<p><b>Peak Pulse Power Rating At 1 ms. Exp. 600 W</b></p>	<p><b>Reverse stand-off Voltage 5.8 ÷ 376 V</b></p>
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### Maximum Ratings, according to IEC publication No. 134

$P_{PP}$	Peak pulse power with 10/1000 $\mu$ s exponential pulse	600 W
$I_{FSM}$	Non repetitive surge peak forward current (t = 10 ms) (Note 1)	100 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 $I_F = 50$ A (Note 1) <table style="width: 100%; border: none; margin-top: 5px;"> <tr> <td style="width: 30%;"><math>V_{BR} \leq 220</math> V</td> <td style="width: 70%; text-align: right;">3.5 V</td> </tr> <tr> <td><math>V_{BR} &gt; 220</math> V</td> <td style="text-align: right;">5.0 V</td> </tr> </table>	$V_{BR} \leq 220$ V	3.5 V	$V_{BR} > 220$ V	5.0 V	
$V_{BR} \leq 220$ V	3.5 V					
$V_{BR} > 220$ V	5.0 V					
$R_{thj-l}$	Max. thermal resistance (l = 10 mm.)	30 °C/W				

Note 1: Valid only for Unidirectional.

Type	Maximum Reverse Leakage Current		(1) Breakdown Voltage				Max. Clamping Voltage	
	$I_{RM}$	at $V_{RM}$	$V_{BR}$	at $I_R$			$V_{CL}$	at $I_{PP}$
Unidirectional	( $\mu A$ )	(V)	Min.	Nom.	Max.	(mA)	(V)	(A)
BZW06-5V8	1000	5.8	6.45	6.8	7.14	10	10.5	57
BZW06-6V4	500	6.4	7.13	7.5	7.88	10	11.3	53
BZW06-7V0	200	7.02	7.79	8.2	8.61	10	12.1	50
BZW06-7V8	50	7.78	8.65	9.1	9.55	1	13.4	45
BZW06-8V5	10	8.55	9.5	10	10.5	1	14.5	41
BZW06-9V4	5	9.4	10.5	11	11.6	1	15.6	38
BZW06-10	5	10.2	11.4	12	12.6	1	16.7	36
BZW06-11	5	11.1	12.4	13	13.7	1	18.2	33
BZW06-13	5	12.8	14.3	15	15.8	1	21.2	28
BZW06-14	5	13.6	15.2	16	16.8	1	22.5	27
BZW06-15	5	15.3	17.1	18	18.9	1	25.2	24
BZW06-17	5	17.1	19	20	21	1	27.7	22
BZW06-19	5	18.8	20.9	22	23.1	1	30.6	20
BZW06-20	5	20.5	22.8	24	25.2	1	33.2	18
BZW06-23	5	23.1	25.7	27	28.4	1	37.5	16
BZW06-26	5	25.6	28.5	30	31.5	1	41.5	14.5
BZW06-28	5	28.2	31.4	33	34.7	1	45.7	13.1
BZW06-31	5	30.8	34.2	36	37.8	1	49.9	12
BZW06-33	5	33.3	37.1	39	41	1	53.9	11.1
BZW06-37	5	36.8	40.9	43	45.2	1	59.3	10.1
BZW06-40	5	40.2	44.7	47	49.4	1	64.8	9.3
BZW06-44	5	43.6	48.5	51	53.6	1	70.1	8.6
BZW06-48	5	47.8	53.2	56	58.8	1	77	7.8
BZW06-53	5	53	58.9	62	65.1	1	85	7.1
BZW06-58	5	58.1	64.6	68	71.4	1	92	6.5
BZW06-64	5	64.1	71.3	75	78.8	1	103	5.8
BZW06-70	5	70.1	77.9	82	86.1	1	113	5.3
BZW06-78	5	77.8	86.5	91	95.5	1	125	4.8
BZW06-85	5	85.8	95	100	105	1	137	4.4
BZW06-94	5	94	105	110	116	1	152	3.9
BZW06-102	5	102	114	120	126	1	165	3.6
BZW06-111	5	111	124	130	137	1	179	3.4
BZW06-128	5	128	143	150	158	1	207	2.9
BZW06-136	5	136	152	160	168	1	219	2.7
BZW06-145	5	145	161	170	179	1	234	2.6
BZW06-154	5	154	171	180	189	1	246	2.4
BZW06-171	5	171	190	200	210	1	274	2.2
BZW06-188	5	188	209	220	231	1	301	2
BZW06-213	5	213	237	250	263	1	344	1.8
BZW06-239	5	239	266	280	294	1	384	1.7
BZW06-256	5	256	285	300	315	1	414	1.6
BZW06-273	5	273	304	320	336	1	436	1.6
BZW06-299	5	299	332	350	368	1	482	1.6
BZW06-342	5	342	380	400	420	1	548	1.3
BZW06-376	5	376	418	440	462	1	603	1.3

 (1) Tested with pulses. Pulse test:  $t_p = 50 \text{ ms}$ ;  $\delta < 2\%$