

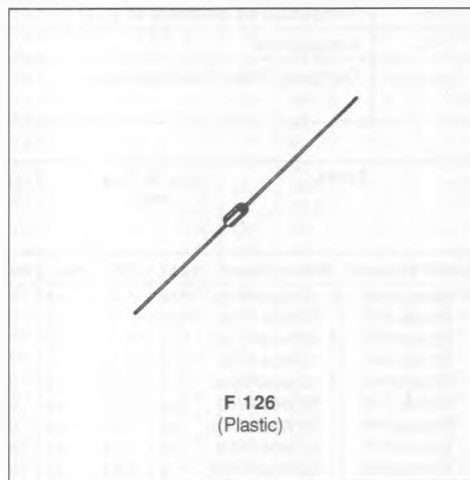


**SGS-THOMSON**  
MICROELECTRONICS

**BZW04-5V8, B → 376, B**  
**BZW04P5V8, B → 376, B**

## UNI-AND BIDIRECTIONAL TRANSIENT VOLTAGE SUPPRESSORS

- HIGH SURGE CAPABILITY :  
400 W / 1 ms EXPO
- VERY FAST CLAMPING TIME :  
1  $\mu$ s FOR UNIDIRECTIONAL TYPES  
5 ns FOR BIDIRECTIONAL TYPES
- LARGE VOLTAGE RANGE :  
5.8 V → 376 V
- ORDER CODE :  
TYPE NUMBER FOR UNIDIRECTIONAL  
TYPES, TYPE NUMBER + SUFFIX B FOR  
BIDIRECTIONAL TYPES



### DESCRIPTION

Transient voltage suppressor diodes especially useful in protecting integrated circuits, MOS, hybrids and other voltage-sensitive semiconductors and components.

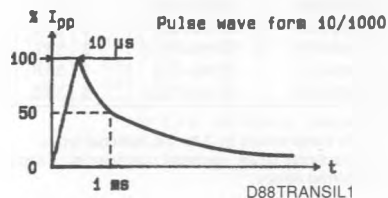
### ABSOLUTE MAXIMUM RATINGS (limiting values)

| Symbol             | Parameter                                                            |                                      | Value              | Unit     |
|--------------------|----------------------------------------------------------------------|--------------------------------------|--------------------|----------|
| $P_p$              | Peak Pulse Power for 1 ms Exponential Pulse                          | $T_j$ Initial = 25 °C<br>See note 1  | 400                | W        |
| P                  | Power Dissipation on Infinite Heatsink                               | $T_{amb} = 50$ °C                    | 1.7                | W        |
| $I_{FSM}$          | Non Repetitive Surge Peak Forward Current for Unidirectional Types   | $T_j$ Initial = 25 °C<br>$t = 10$ ms | 50                 | A        |
| $T_{stg}$<br>$T_j$ | Storage and Operating Junction Temperature Range                     |                                      | - 55 to 150<br>150 | °C<br>°C |
| $T_L$              | Maximum Lead Temperature for Soldering During 10 s at 4 mm from Case |                                      | 230                | °C       |

### THERMAL RESISTANCE

| Symbol        | Parameter                                                  | Value | Unit |
|---------------|------------------------------------------------------------|-------|------|
| $R_{th(j-l)}$ | Junction-leads on Infinite Heatsink for $L_{lead} = 10$ mm | 60    | °C/W |

**Note :** 1. For surges upper than the maximum values, the diode will present a short-circuit anode-cathode.



ELECTRICAL CHARACTERISTICS ( $T_j = 25^\circ\text{C}$ )

| Symbol         | Parameter                             |                      | Value      |
|----------------|---------------------------------------|----------------------|------------|
| $V_{RM}$       | Stand-off Voltage                     |                      | See tables |
| $V_{(BR)}$     | Breakdown Voltage                     |                      |            |
| $V_{(CL)}$     | Clamping Voltage                      |                      |            |
| $I_{PP}$       | Peak Pulse Current                    |                      |            |
| $\alpha_T$     | Temperature Coefficient of $V_{(BR)}$ |                      |            |
| C              | Capacitance                           |                      |            |
| $t_{clamping}$ | Clamping Time (0 volt to $V_{(BR)}$ ) | Unidirectional Types | 1 ps max.  |
|                |                                       | Bidirectional Types  | 5 ns max.  |

| Types          |               | $I_{RM}$ @ $V_{RM}$<br>max. |      | $V_{(BR)}^*$ @<br>(V) |      |       | $I_R$ | $V_{(CL)}$ @ $I_{PP}$<br>max. | $V_{(CL)}$ @ $I_{PP}$<br>max. | $\alpha_T$<br>max. | $C^{**}$<br>typ.<br>$V_R = 0$<br>$f = 1\text{ MHz}$ |                                |      |
|----------------|---------------|-----------------------------|------|-----------------------|------|-------|-------|-------------------------------|-------------------------------|--------------------|-----------------------------------------------------|--------------------------------|------|
|                |               |                             |      |                       |      |       |       | 1ms expo                      | 8-20 $\mu$ s expo             |                    |                                                     |                                |      |
| Unidirectional | Bidirectional | ( $\mu$ A)                  | (V)  | min.                  | nom. | max.  | (mA)  | (V)                           | (A)                           | (V)                | (A)                                                 | ( $10^{-4}/^{\circ}\text{C}$ ) | (pF) |
| P BZW04P5V8    | P BZW04P5V8B  | 1000                        | 5.8  | 6.45                  | 6.8  | 7.48  | 10    | 10.5                          | 38                            | 13.4               | 174                                                 | 5.7                            | 3500 |
| BZW04-5V8      | BZW04-5V8B    | 1000                        | 5.8  | 6.45                  | 6.8  | 7.14  | 10    | 10.5                          | 38                            | 13.4               | 174                                                 | 5.7                            | 3500 |
| BZW04P6V4      | P BZW04P6V4B  | 500                         | 6.4  | 7.13                  | 7.5  | 8.25  | 10    | 11.3                          | 35.4                          | 14.5               | 160                                                 | 6.1                            | 3100 |
| BZW04-6V4      | BZW04-6V4B    | 500                         | 6.4  | 7.13                  | 7.5  | 7.88  | 10    | 11.3                          | 35.4                          | 14.5               | 160                                                 | 6.1                            | 3100 |
| BZW04P7V0      | P BZW04P7V0B  | 200                         | 7.02 | 7.79                  | 8.2  | 9.02  | 10    | 12.1                          | 33                            | 15.5               | 148                                                 | 6.5                            | 2700 |
| BZW04-7V0      | BZW04-7V0B    | 200                         | 7.02 | 7.79                  | 8.2  | 8.61  | 10    | 12.1                          | 33                            | 15.5               | 148                                                 | 6.5                            | 2700 |
| BZW04P7V8      | BZW04P7V8B    | 50                          | 7.78 | 8.65                  | 9.1  | 10.0  | 1     | 13.4                          | 30                            | 17.1               | 134                                                 | 6.8                            | 2300 |
| BZW04-7V8      | BZW04-7V8B    | 50                          | 7.78 | 8.65                  | 9.1  | 9.55  | 1     | 13.4                          | 30                            | 17.1               | 134                                                 | 6.8                            | 2300 |
| BZW04P8V5      | BZW04P8V5B    | 10                          | 8.55 | 9.50                  | 10   | 11.0  | 1     | 14.5                          | 27.6                          | 18.6               | 258                                                 | 7.3                            | 2000 |
| BZW04-8V5      | BZW04-8V5B    | 10                          | 8.55 | 9.50                  | 10   | 10.50 | 1     | 14.5                          | 27.6                          | 18.6               | 258                                                 | 7.3                            | 2000 |
| P BZW04P9V4    | P BZW04P9V4B  | 5                           | 9.4  | 10.5                  | 11   | 12.1  | 1     | 15.6                          | 25.7                          | 20.3               | 236                                                 | 7.5                            | 1750 |
| BZW04-9V4      | BZW04-9V4B    | 5                           | 9.4  | 10.5                  | 11   | 11.6  | 1     | 15.6                          | 25.7                          | 20.3               | 236                                                 | 7.5                            | 1750 |
| BZW04P10       | BZW04P10B     | 5                           | 10.2 | 11.4                  | 12   | 13.2  | 1     | 16.7                          | 24                            | 21.7               | 221                                                 | 7.8                            | 1550 |
| BZW04-10       | BZW04-10B     | 5                           | 10.2 | 11.4                  | 12   | 12.6  | 1     | 16.7                          | 24                            | 21.7               | 221                                                 | 7.8                            | 1550 |
| P BZW04P11     | P BZW04P11B   | 5                           | 11.1 | 12.4                  | 13   | 14.3  | 1     | 18.2                          | 22                            | 23.6               | 203                                                 | 8.1                            | 1450 |
| BZW04-11       | BZW04-11B     | 5                           | 11.1 | 12.4                  | 13   | 13.7  | 1     | 18.2                          | 22                            | 23.6               | 203                                                 | 8.1                            | 1450 |
| P BZW04P13     | P BZW04P13B   | 5                           | 12.8 | 14.3                  | 15   | 16.5  | 1     | 21.2                          | 19                            | 27.2               | 176                                                 | 8.4                            | 1200 |
| BZW04-13       | BZW04-13B     | 5                           | 12.8 | 14.3                  | 15   | 15.8  | 1     | 21.2                          | 19                            | 27.2               | 176                                                 | 8.4                            | 1200 |
| P BZW04P14     | P BZW04P14B   | 5                           | 13.6 | 15.2                  | 16   | 17.6  | 1     | 22.5                          | 17.8                          | 28.9               | 166                                                 | 8.6                            | 1100 |
| BZW04-14       | BZW04-14B     | 5                           | 13.6 | 15.2                  | 16   | 16.8  | 1     | 22.5                          | 17.8                          | 28.9               | 166                                                 | 8.6                            | 1100 |
| P BZW04P15     | P BZW04P15B   | 5                           | 15.3 | 17.1                  | 18   | 19.8  | 1     | 25.2                          | 16                            | 32.5               | 148                                                 | 8.8                            | 975  |
| BZW04-15       | BZW04-15B     | 5                           | 15.3 | 17.1                  | 18   | 18.9  | 1     | 25.2                          | 16                            | 32.5               | 148                                                 | 8.8                            | 975  |
| BZW04P17       | BZW04P17B     | 5                           | 17.1 | 19                    | 20   | 22    | 1     | 27.7                          | 14.5                          | 36.1               | 133                                                 | 9.0                            | 850  |
| BZW04-17       | BZW04-17B     | 5                           | 17.1 | 19                    | 20   | 21    | 1     | 27.7                          | 14.5                          | 36.1               | 133                                                 | 9.0                            | 850  |
| BZW04P19       | BZW04P19B     | 5                           | 18.8 | 20.9                  | 22   | 24.2  | 1     | 30.6                          | 13                            | 39.3               | 122                                                 | 9.2                            | 800  |
| BZW04-19       | BZW04-19B     | 5                           | 18.8 | 20.9                  | 22   | 23.1  | 1     | 30.6                          | 13                            | 39.3               | 122                                                 | 9.2                            | 800  |
| BZW04P20       | P BZW04P20B   | 5                           | 20.5 | 22.8                  | 24   | 26.4  | 1     | 33.2                          | 12                            | 42.8               | 112                                                 | 9.4                            | 725  |
| BZW04-20       | BZW04-20B     | 5                           | 20.5 | 22.8                  | 24   | 25.2  | 1     | 33.2                          | 12                            | 42.8               | 112                                                 | 9.4                            | 725  |
| P BZW04P23     | BZW04P23B     | 5                           | 23.1 | 25.7                  | 27   | 29.7  | 1     | 37.5                          | 10.7                          | 48.3               | 99                                                  | 9.6                            | 625  |
| BZW04-23       | BZW04-23B     | 5                           | 23.1 | 25.7                  | 27   | 28.4  | 1     | 37.5                          | 10.7                          | 48.3               | 99                                                  | 9.6                            | 625  |
| P BZW04P26     | P BZW04P26B   | 5                           | 25.6 | 28.5                  | 30   | 33    | 1     | 41.5                          | 9.6                           | 53.5               | 90                                                  | 9.7                            | 575  |
| BZW04-26       | BZW04-26B     | 5                           | 25.6 | 28.5                  | 30   | 31.5  | 1     | 41.5                          | 9.6                           | 53.5               | 90                                                  | 9.7                            | 575  |
| BZW04P28       | P BZW04P28B   | 5                           | 28.2 | 31.4                  | 33   | 36.3  | 1     | 45.7                          | 8.8                           | 59                 | 81.5                                                | 9.8                            | 510  |
| BZW04-28       | BZW04-28B     | 5                           | 28.2 | 31.4                  | 33   | 34.7  | 1     | 45.7                          | 8.8                           | 59                 | 81.5                                                | 9.8                            | 510  |
| P BZW04P31     | P BZW04P31B   | 5                           | 30.8 | 34.2                  | 36   | 39.6  | 1     | 49.9                          | 8                             | 64.3               | 74.5                                                | 9.9                            | 480  |
| BZW04-31       | BZW04-31B     | 5                           | 30.8 | 34.2                  | 36   | 37.8  | 1     | 49.9                          | 8                             | 64.3               | 74.5                                                | 9.9                            | 480  |
| P BZW04P33     | BZW04P33B     | 5                           | 33.3 | 37.1                  | 39   | 42.9  | 1     | 53.9                          | 7.4                           | 69.7               | 69                                                  | 10.0                           | 450  |

\* Pulse test  $t_p \leq 50\text{ ms}$   $\delta < 2\%$ .

\*\* Divide these values by 2 for bidirectional types.

For bidirectional types, electrical characteristics apply in both directions.

P : Preferred device.

| Types          |               | $I_{RM}$ @ $V_{RM}$<br>max. |      | $V_{(BR)}^*$ @<br>(V) |      |      | $I_R$ | $V_{(CL)}$ @ $I_{PP}$<br>max. |     | $V_{(CL)}$ @ $I_{PP}$<br>max. |      | $\alpha_T$<br>max.             | $C^{**}$<br>typ.<br>$V_R=0$<br>$f=1\text{ MHz}$ |
|----------------|---------------|-----------------------------|------|-----------------------|------|------|-------|-------------------------------|-----|-------------------------------|------|--------------------------------|-------------------------------------------------|
| Unidirectional | Bidirectional | ( $\mu\text{A}$ )           | (V)  | min.                  | nom. | max. | (mA)  | (V)                           | (A) | (V)                           | (A)  | ( $10^{-4}/^{\circ}\text{C}$ ) | (pF)                                            |
| BZW04-33       | BZW04-33B     | 5                           | 33.3 | 37.1                  | 39   | 41   | 1     | 53.9                          | 7.4 | 69.7                          | 69   | 10.0                           | 450                                             |
| BZW04P37       | BZW04P37B     | 5                           | 36.8 | 40.9                  | 43   | 47.3 | 1     | 59.3                          | 6.7 | 76.8                          | 62.5 | 10.1                           | 400                                             |
| BZW04-37       | BZW04-37B     | 5                           | 36.8 | 40.9                  | 43   | 45.2 | 1     | 59.3                          | 6.7 | 76.8                          | 62.5 | 10.1                           | 400                                             |
| BZW04P40       | BZW04P40B     | 5                           | 40.2 | 44.7                  | 47   | 51.7 | 1     | 64.8                          | 6.2 | 84                            | 57   | 10.1                           | 370                                             |
| BZW04-40       | BZW04-40B     | 5                           | 40.2 | 44.7                  | 47   | 49.4 | 1     | 64.8                          | 6.2 | 84                            | 57   | 10.1                           | 370                                             |
| BZW04P44       | BZW04P44B     | 5                           | 43.6 | 48.5                  | 51   | 56.1 | 1     | 70.1                          | 5.7 | 91                            | 52.5 | 10.2                           | 350                                             |
| BZW04-44       | BZW04-44B     | 5                           | 43.6 | 48.5                  | 51   | 53.6 | 1     | 70.1                          | 5.7 | 91                            | 52.5 | 10.2                           | 350                                             |
| BZW04P48       | BZW04P48B     | 5                           | 47.8 | 53.2                  | 56   | 61.6 | 1     | 77                            | 5.2 | 100                           | 48   | 10.3                           | 320                                             |
| BZW04-48       | BZW04-48B     | 5                           | 47.8 | 53.2                  | 56   | 58.8 | 1     | 77                            | 5.2 | 100                           | 48   | 10.3                           | 320                                             |
| BZW04P53       | BZW04P53B     | 5                           | 53   | 58.9                  | 62   | 68.2 | 1     | 85                            | 4.7 | 111                           | 43   | 10.4                           | 290                                             |
| BZW04-53       | BZW04-53B     | 5                           | 53   | 58.9                  | 62   | 65.1 | 1     | 85                            | 4.7 | 111                           | 43   | 10.4                           | 290                                             |
| BZW04P58       | BZW04P58B     | 5                           | 58.1 | 64.6                  | 68   | 74.8 | 1     | 92                            | 4.3 | 121                           | 39.5 | 10.4                           | 270                                             |
| BZW04-58       | BZW04-58B     | 5                           | 58.1 | 64.6                  | 68   | 71.4 | 1     | 92                            | 4.3 | 121                           | 39.5 | 10.4                           | 270                                             |
| BZW04P64       | BZW04P64B     | 5                           | 64.1 | 71.3                  | 75   | 82.5 | 1     | 103                           | 3.9 | 134                           | 36   | 10.5                           | 250                                             |
| BZW04-64       | BZW04-64B     | 5                           | 64.1 | 71.3                  | 75   | 78.8 | 1     | 103                           | 3.9 | 134                           | 36   | 10.5                           | 250                                             |
| BZW04P70       | BZW04P70B     | 5                           | 70.1 | 77.9                  | 82   | 90.2 | 1     | 113                           | 3.5 | 146                           | 33   | 10.5                           | 230                                             |
| BZW04-70       | BZW04-70B     | 5                           | 70.1 | 77.9                  | 82   | 86.1 | 1     | 113                           | 3.5 | 146                           | 33   | 10.5                           | 230                                             |
| BZW04P78       | BZW04P78B     | 5                           | 77.8 | 86.5                  | 91   | 100  | 1     | 125                           | 3.2 | 162                           | 29.5 | 10.6                           | 210                                             |
| BZW04-78       | BZW04-78B     | 5                           | 77.8 | 86.5                  | 91   | 95.5 | 1     | 125                           | 3.2 | 162                           | 29.5 | 10.6                           | 210                                             |
| P BZW04P85     | BZW04P85B     | 5                           | 85.5 | 95                    | 100  | 110  | 1     | 137                           | 2.9 | 178                           | 27   | 10.6                           | 200                                             |
| BZW04-85       | BZW04-85B     | 5                           | 85.5 | 95                    | 100  | 105  | 1     | 137                           | 2.9 | 178                           | 27   | 10.6                           | 200                                             |
| BZW04P94       | BZW04P94B     | 5                           | 94   | 105                   | 110  | 121  | 1     | 152                           | 2.6 | 195                           | 24.5 | 10.7                           | 185                                             |
| BZW04-94       | BZW04-94B     | 5                           | 94   | 105                   | 110  | 116  | 1     | 152                           | 2.6 | 195                           | 24.5 | 10.7                           | 185                                             |
| BZW04P102      | BZW04P102B    | 5                           | 102  | 114                   | 120  | 132  | 1     | 165                           | 2.4 | 212                           | 22.5 | 10.7                           | 170                                             |
| BZW04-102      | BZW04-102B    | 5                           | 102  | 114                   | 120  | 126  | 1     | 165                           | 2.4 | 212                           | 22.5 | 10.7                           | 170                                             |
| P BZW04P111    | BZW04P111B    | 5                           | 111  | 124                   | 130  | 143  | 1     | 179                           | 2.2 | 230                           | 20.8 | 10.7                           | 165                                             |
| BZW04-111      | BZW04-111B    | 5                           | 111  | 124                   | 130  | 137  | 1     | 179                           | 2.2 | 230                           | 20.8 | 10.7                           | 165                                             |
| P BZW04P128    | BZW04P128B    | 5                           | 128  | 143                   | 150  | 165  | 1     | 207                           | 2.0 | 265                           | 18.1 | 10.8                           | 145                                             |
| BZW04-128      | BZW04-128B    | 5                           | 128  | 143                   | 150  | 158  | 1     | 207                           | 2.0 | 265                           | 18.1 | 10.8                           | 145                                             |
| P BZW04P136    | BZW04P136B    | 5                           | 136  | 152                   | 160  | 176  | 1     | 219                           | 1.8 | 282                           | 17   | 10.8                           | 140                                             |
| BZW04-136      | BZW04-136B    | 5                           | 136  | 152                   | 160  | 168  | 1     | 219                           | 1.8 | 282                           | 17   | 10.8                           | 140                                             |
| P BZW04P145    | BZW04P145B    | 5                           | 145  | 161                   | 170  | 187  | 1     | 234                           | 1.7 | 301                           | 16   | 10.8                           | 135                                             |
| BZW04-145      | BZW04-145B    | 5                           | 145  | 161                   | 170  | 179  | 1     | 234                           | 1.7 | 301                           | 16   | 10.8                           | 135                                             |
| BZW04P154      | BZW04P154B    | 5                           | 154  | 171                   | 180  | 198  | 1     | 246                           | 1.6 | 317                           | 15.1 | 10.8                           | 125                                             |
| BZW04-154      | BZW04-154B    | 5                           | 154  | 171                   | 180  | 189  | 1     | 246                           | 1.6 | 317                           | 15.1 | 10.8                           | 125                                             |
| BZW04P171      | BZW04P171B    | 5                           | 171  | 190                   | 200  | 220  | 1     | 274                           | 1.5 | 353                           | 13.6 | 10.8                           | 120                                             |
| BZW04-171      | BZW04-171B    | 5                           | 171  | 190                   | 200  | 210  | 1     | 274                           | 1.5 | 353                           | 13.6 | 10.8                           | 120                                             |
| BZW04P188      | BZW04P188B    | 5                           | 188  | 209                   | 220  | 242  | 1     | 301                           | 1.4 | 388                           | 12.4 | 10.8                           | 110                                             |
| BZW04-188      | BZW04-188B    | 5                           | 188  | 209                   | 220  | 231  | 1     | 301                           | 1.4 | 388                           | 12.4 | 10.8                           | 110                                             |
| P BZW04P213    | BZW04P213B    | 5                           | 213  | 237                   | 250  | 275  | 1     | 344                           | 1.5 | 442                           | 12   | 11                             | 100                                             |
| BZW04-213      | BZW04-213B    | 5                           | 213  | 237                   | 250  | 263  | 1     | 344                           | 1.5 | 442                           | 12   | 11                             | 100                                             |
| P BZW04P239    | BZW04P239B    | 5                           | 239  | 266                   | 280  | 308  | 1     | 384                           | 1.5 | 494                           | 12   | 11                             | 95                                              |
| BZW04-239      | BZW04-239B    | 5                           | 239  | 266                   | 280  | 294  | 1     | 384                           | 1.5 | 494                           | 12   | 11                             | 95                                              |
| BZW04P256      | BZW04P256B    | 5                           | 256  | 285                   | 300  | 330  | 1     | 414                           | 1.2 | 529                           | 10   | 11                             | 90                                              |
| BZW04-256      | BZW04-256B    | 5                           | 256  | 285                   | 300  | 315  | 1     | 414                           | 1.2 | 529                           | 10   | 11                             | 90                                              |
| BZW04P273      | BZW04P273B    | 5                           | 273  | 304                   | 320  | 352  | 1     | 438                           | 1.2 | 564                           | 10   | 11                             | 85                                              |
| BZW04-273      | BZW04-273B    | 5                           | 273  | 304                   | 320  | 336  | 1     | 438                           | 1.2 | 564                           | 10   | 11                             | 85                                              |
| P BZW04P299    | BZW04P299B    | 5                           | 299  | 332                   | 350  | 385  | 1     | 482                           | 0.9 | 618                           | 9    | 11                             | 80                                              |
| BZW04-299      | BZW04-299B    | 5                           | 299  | 332                   | 350  | 368  | 1     | 482                           | 0.9 | 618                           | 9    | 11                             | 80                                              |
| BZW04P342      | BZW04P342B    | 5                           | 342  | 380                   | 400  | 440  | 1     | 548                           | 0.9 | 706                           | 8    | 11                             | 75                                              |
| BZW04-342      | BZW04-342B    | 5                           | 342  | 380                   | 400  | 420  | 1     | 548                           | 0.9 | 706                           | 8    | 11                             | 75                                              |
| BZW04P376      | BZW04P376B    | 5                           | 376  | 418                   | 440  | 484  | 1     | 603                           | 0.8 | 776                           | 8    | 11                             | 70                                              |
| BZW04-376      | BZW04-376B    | 5                           | 376  | 418                   | 440  | 462  | 1     | 603                           | 0.8 | 776                           | 8    | 11                             | 70                                              |

\* Pulse test  $t_b \leq 50\text{ ms}$   $\delta < 2\%$ 

\*\* Divide these values by 2 for bidirectional types

For bidirectional types, electrical characteristics apply in both directions.

P : Preferred device

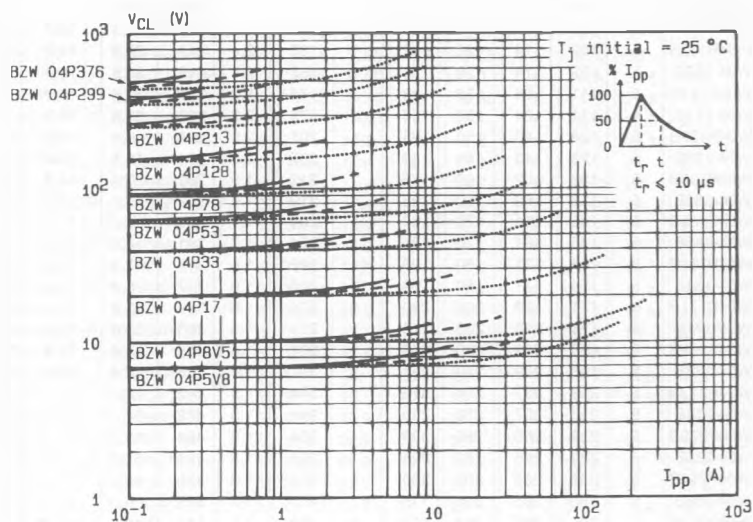
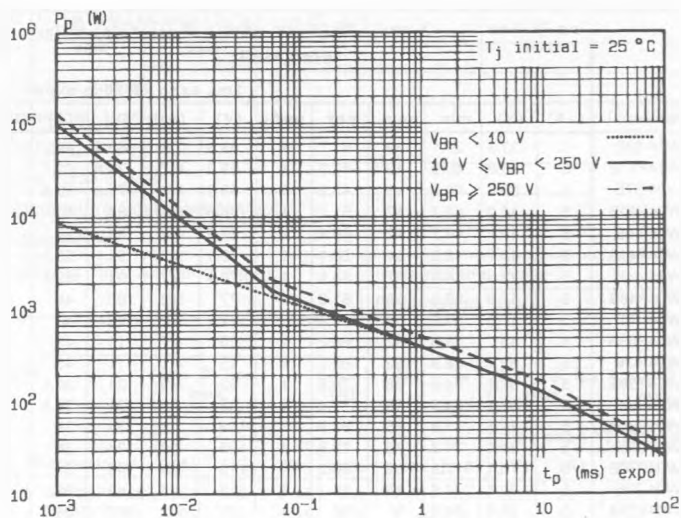


Fig.2 - Clamping voltage versus peak pulse current.  
exponential waveform  $t = 20 \mu s$  .....  
 $t = 1 ms$  ----  
 $t = 10 ms$  —

Note : The curves of the figure 2 are specified for a junction temperature of  $25^\circ C$  before surge. The given results may be extrapolated for other junction temperatures by using the following formula :  $\Delta V(BR) = \alpha T(V(BR)) \times [T_j - 25] \times V(BR)$   
For intermediate voltages, extrapolate the given results.

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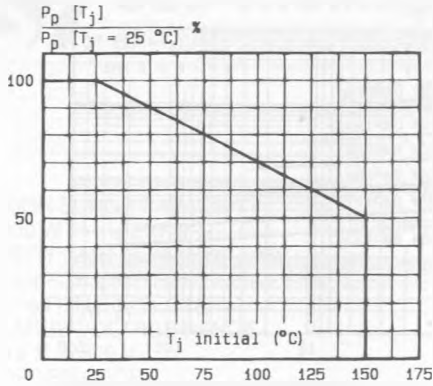


Fig. 3 - Allowable power dissipation versus junction temperature.

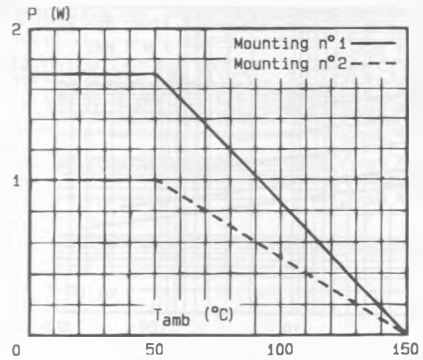


Fig. 4 - Power dissipation versus ambient temperature.

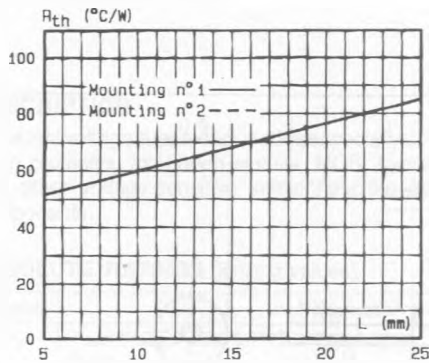


Fig. 5 - Thermal resistance versus lead length.

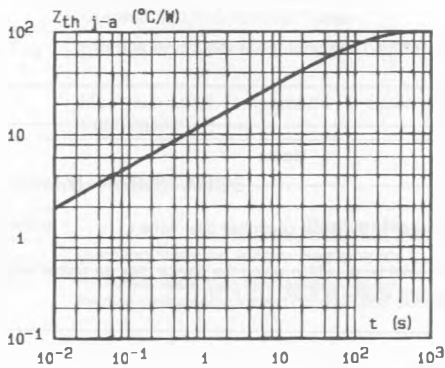


Fig. 6 - Transient thermal impedance junction-ambient for mounting n°2 versus pulse duration ( $L = 10 \text{ mm}$ ).

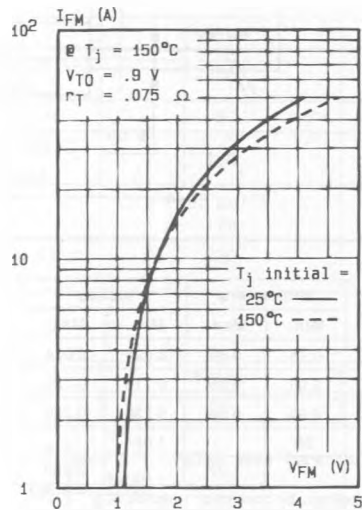
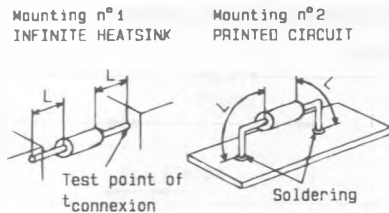


Fig. 7 - Peak forward current versus peak forward voltage drop (typical values for unidirectional types).

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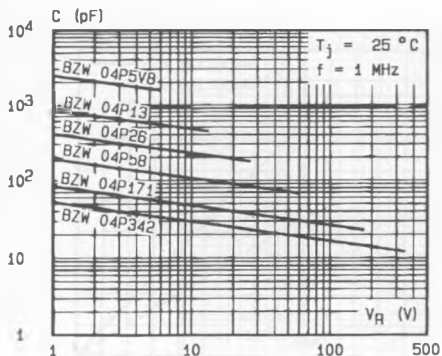


Fig.8a - Capacitance versus reverse applied voltage for unidirectional types (typical values) .

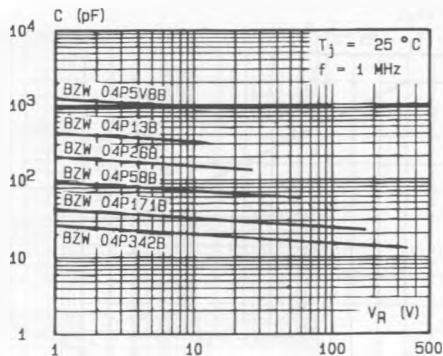
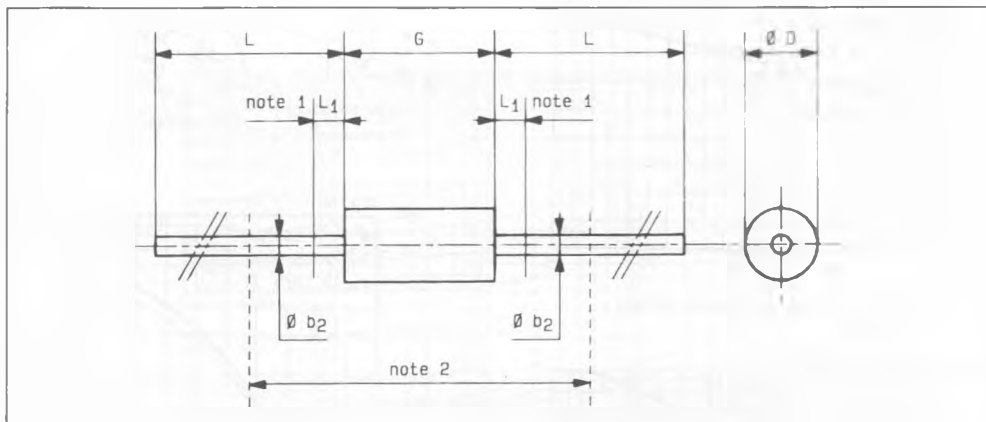


Fig.8b - Capacitance versus reverse applied voltage for bidirectional types (typical values) .

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## PACKAGE MECHANICAL DATA

F 126 Plastic



| Ref.              | Millimeters |      | Inches |       | Notes                                                                                                                                                                                                  |
|-------------------|-------------|------|--------|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                   | Min.        | Max. | Min.   | Max.  |                                                                                                                                                                                                        |
| $\varnothing b_2$ | 0.76        | 0.86 | 0.029  | 0.034 | 1 - The lead diameter $\varnothing b_2$ is not controlled over zone $L_1$ .<br>2 - The minimum axial length within which the device may be placed with its leads bent at right angles is 0.59" (15 mm) |
| $\varnothing D$   | 2.95        | 3.05 | 0.116  | 0.120 |                                                                                                                                                                                                        |
| $G$               | 6.05        | 6.35 | 0.238  | 0.250 |                                                                                                                                                                                                        |
| $L$               | 26          | —    | 1.024  | —     |                                                                                                                                                                                                        |
| $L_1$             | —           | 1.27 | —      | 0.050 |                                                                                                                                                                                                        |

Cooling method : by convection (method A).

Marking : type number ; white band indicates cathode for unidirectional types.

Weight : 0.4 g