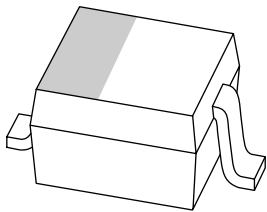


# DATA SHEET



## **BZX384 series** Voltage regulator diodes

Product data sheet  
Supersedes data of 2003 Apr 01

2004 Mar 22

## Voltage regulator diodes

## BZX384 series

### FEATURES

- Total power dissipation: max. 300 mW
- Two tolerance series:  $\pm 2\%$  and approx.  $\pm 5\%$
- Working voltage range: nominal 2.4 to 75 V (E24 range)
- Non-repetitive peak reverse power dissipation: max. 40 W.

### APPLICATIONS

- General regulation functions.

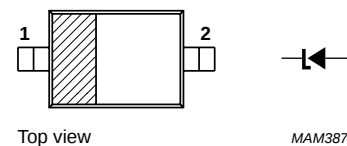
### DESCRIPTION

Low-power voltage regulator diodes encapsulated in a very small SOD323 (SC-76) plastic SMD package.

The diodes are available in the normalized E24  $\pm 2\%$  (BZX384-B) and approx.  $\pm 5\%$  (BZX384-C) tolerance range. The series consists of 37 types with nominal working voltages from 2.4 to 75 V.

### PINNING

| PIN | DESCRIPTION |
|-----|-------------|
| 1   | cathode     |
| 2   | anode       |



The marking bar indicates the cathode.

Fig.1 Simplified outline (SOD323; SC-76) and symbol.

## Voltage regulator diodes

## BZX384 series

## MARKING

| TYPE<br>NUMBER                                     | MARKING<br>CODE | TYPE<br>NUMBER | MARKING<br>CODE | TYPE<br>NUMBER | MARKING<br>CODE | TYPE<br>NUMBER | MARKING<br>CODE |
|----------------------------------------------------|-----------------|----------------|-----------------|----------------|-----------------|----------------|-----------------|
| <b>Marking codes for BZX384-B2V4 to BZX384-B75</b> |                 |                |                 |                |                 |                |                 |
| BZX384-B2V4                                        | K1              | BZX384-B6V2    | L2              | BZX384-B16     | M3              | BZX384-B43     | N3              |
| BZX384-B2V7                                        | K2              | BZX384-B6V8    | L3              | BZX384-B18     | M4              | BZX384-B47     | N4              |
| BZX384-B3V0                                        | K3              | BZX384-B7V5    | L4              | BZX384-B20     | M5              | BZX384-B51     | N5              |
| BZX384-B3V3                                        | K4              | BZX384-B8V2    | L5              | BZX384-B22     | M6              | BZX384-B56     | N6              |
| BZX384-B3V6                                        | K5              | BZX384-B9V1    | L6              | BZX384-B24     | M7              | BZX384-B62     | N7              |
| BZX384-B3V9                                        | K6              | BZX384-B10     | L7              | BZX384-B27     | M8              | BZX384-B68     | N8              |
| BZX384-B4V3                                        | K7              | BZX384-B11     | L8              | BZX384-B30     | M9              | BZX384-B75     | N9              |
| BZX384-B4V7                                        | K8              | BZX384-B12     | L9              | BZX384-B33     | N0              |                |                 |
| BZX384-B5V1                                        | K9              | BZX384-B13     | M1              | BZX384-B36     | N1              |                |                 |
| BZX384-B5V6                                        | L1              | BZX384-B15     | M2              | BZX384-B39     | N2              |                |                 |
| <b>Marking codes for BZX384-C2V4 to BZX384-C75</b> |                 |                |                 |                |                 |                |                 |
| BZX384-C2V4                                        | T3              | BZX384-C6V2    | T1              | BZX384-C16     | DE              | BZX384-C43     | DR              |
| BZX384-C2V7                                        | T4              | BZX384-C6V8    | D7              | BZX384-C18     | DF              | BZX384-C47     | DS              |
| BZX384-C3V0                                        | T5              | BZX384-C7V5    | D8              | BZX384-C20     | DG              | BZX384-C51     | DT              |
| BZX384-C3V3                                        | T6              | BZX384-C8V2    | D9              | BZX384-C22     | DH              | BZX384-C56     | DU              |
| BZX384-C3V6                                        | T7              | BZX384-C9V1    | D0              | BZX384-C24     | DJ              | BZX384-C62     | DV              |
| BZX384-C3V9                                        | T8              | BZX384-C10     | T2              | BZX384-C27     | DK              | BZX384-C68     | DW              |
| BZX384-C4V3                                        | T9              | BZX384-C11     | DA              | BZX384-C30     | DL              | BZX384-C75     | DX              |
| BZX384-C4V7                                        | T0              | BZX384-C12     | DB              | BZX384-C33     | DM              |                |                 |
| BZX384-C5V1                                        | D5              | BZX384-C13     | DC              | BZX384-C36     | DN              |                |                 |
| BZX384-C5V6                                        | D6              | BZX384-C15     | DD              | BZX384-C39     | DP              |                |                 |

## ORDERING INFORMATION

| TYPE<br>NUMBER                  | PACKAGE |                                          |         |
|---------------------------------|---------|------------------------------------------|---------|
|                                 | NAME    | DESCRIPTION                              | VERSION |
| BZX384-B2V4<br>to<br>BZX384-B75 | –       | plastic surface mounted package; 2 leads | SOD323  |
| BZX384-C2V4<br>to<br>BZX384-C75 |         |                                          |         |

## Voltage regulator diodes

## BZX384 series

## LIMITING VALUES

In accordance with the Absolute Maximum Rating System (IEC 60134).

| SYMBOL    | PARAMETER                                     | CONDITIONS                                                                  | MIN.               | MAX. | UNIT       |
|-----------|-----------------------------------------------|-----------------------------------------------------------------------------|--------------------|------|------------|
| $I_F$     | continuous forward current                    |                                                                             | –                  | 250  | mA         |
| $I_{ZSM}$ | non-repetitive peak reverse current           | $t_p = 100 \mu s$ ; square wave;<br>$T_{amb} = 25^\circ C$ ; prior to surge | see Tables 1 and 2 |      | A          |
| $P_{ZSM}$ | non-repetitive peak reverse power dissipation | $t_p = 100 \mu s$ ; square wave;<br>$T_{amb} = 25^\circ C$ ; prior to surge | –                  | 40   | W          |
| $P_{tot}$ | total power dissipation                       | $T_{amb} = 25^\circ C$ ; note 1                                             | –                  | 300  | mW         |
| $T_{stg}$ | storage temperature                           |                                                                             | –65                | +150 | $^\circ C$ |
| $T_j$     | junction temperature                          |                                                                             | –65                | +150 | $^\circ C$ |

## Note

1. Refer to SOD323 standard mounting conditions.

## CHARACTERISTICS

## Total BZX384-B and C series

$T_j = 25^\circ C$  unless otherwise specified.

| SYMBOL | PARAMETER          | CONDITIONS                         | MAX. | UNIT    |
|--------|--------------------|------------------------------------|------|---------|
| $V_F$  | forward voltage    | $I_F = 10 \text{ mA}$ ; see Fig.3  | 0.9  | V       |
|        |                    | $I_F = 100 \text{ mA}$ ; see Fig.3 | 1.1  | V       |
| $I_R$  | reverse current;   |                                    |      |         |
|        | BZX384-B/C2V4      | $V_R = 1 \text{ V}$                | 50   | $\mu A$ |
|        | BZX384-B/C2V7      | $V_R = 1 \text{ V}$                | 20   | $\mu A$ |
|        | BZX384-B/C3V0      | $V_R = 1 \text{ V}$                | 10   | $\mu A$ |
|        | BZX384-B/C3V3      | $V_R = 1 \text{ V}$                | 5    | $\mu A$ |
|        | BZX384-B/C3V6      | $V_R = 1 \text{ V}$                | 5    | $\mu A$ |
|        | BZX384-B/C3V9      | $V_R = 1 \text{ V}$                | 3    | $\mu A$ |
|        | BZX384-B/C4V3      | $V_R = 1 \text{ V}$                | 3    | $\mu A$ |
|        | BZX384-B/C4V7      | $V_R = 2 \text{ V}$                | 3    | $\mu A$ |
|        | BZX384-B/C5V1      | $V_R = 2 \text{ V}$                | 2    | $\mu A$ |
|        | BZX384-B/C5V6      | $V_R = 2 \text{ V}$                | 1    | $\mu A$ |
|        | BZX384-B/C6V2      | $V_R = 4 \text{ V}$                | 3    | $\mu A$ |
|        | BZX384-B/C6V8      | $V_R = 4 \text{ V}$                | 2    | $\mu A$ |
|        | BZX384-B/C7V5      | $V_R = 5 \text{ V}$                | 1    | $\mu A$ |
|        | BZX384-B/C8V2      | $V_R = 5 \text{ V}$                | 700  | nA      |
|        | BZX384-B/C9V1      | $V_R = 6 \text{ V}$                | 500  | nA      |
|        | BZX384-B/C10       | $V_R = 7 \text{ V}$                | 200  | nA      |
|        | BZX384-B/C11       | $V_R = 8 \text{ V}$                | 100  | nA      |
|        | BZX384-B/C12       | $V_R = 8 \text{ V}$                | 100  | nA      |
|        | BZX384-B/C13       | $V_R = 8 \text{ V}$                | 100  | nA      |
|        | BZX384-B/C15 to 75 | $V_R = 0.7 V_{Znom}$               | 50   | nA      |

## Voltage regulator diodes

## BZX384 series

**Table 1** Per type BZX384-B/C2V4 to B/C24 $T_j = 25\text{ }^{\circ}\text{C}$  unless otherwise specified.

| BZX-<br>Bxxx<br>Cxxx | WORKING VOLTAGE $V_Z$ (V)<br>at $I_{Z\text{test}} = 5\text{ mA}$ |       |                    |      | DIFFERENTIAL RESISTANCE<br>$r_{\text{dif}}$ ( $\Omega$ ) |      |                                     |      | TEMPERATURE<br>COEFFICIENT $S_Z$ (mV/K)<br>at $I_{Z\text{test}} = 5\text{ mA}$<br>(see Figs 4 and 5) |      |      | DIODE CAP.<br>$C_d$ (pF)<br>at $f = 1\text{ MHz}$ ;<br>$V_R = 0\text{ V}$ | NON-REPETITIVE<br>PEAK REVERSE<br>CURRENT $I_{ZSM}$ (A)<br>at $t_p = 100\text{ }\mu\text{s}$ ;<br>$T_{\text{amb}} = 25\text{ }^{\circ}\text{C}$ |
|----------------------|------------------------------------------------------------------|-------|--------------------|------|----------------------------------------------------------|------|-------------------------------------|------|------------------------------------------------------------------------------------------------------|------|------|---------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
|                      | Tol. $\pm 2\%$ (B)                                               |       | Tol. $\pm 5\%$ (C) |      | at $I_{Z\text{test}} = 1\text{ mA}$                      |      | at $I_{Z\text{test}} = 5\text{ mA}$ |      |                                                                                                      |      |      |                                                                           |                                                                                                                                                 |
|                      | MIN.                                                             | MAX.  | MIN.               | MAX. | TYP.                                                     | MAX. | TYP.                                | MAX. | MIN.                                                                                                 | TYP. | MAX. | MAX.                                                                      | MAX.                                                                                                                                            |
| 2V4                  | 2.35                                                             | 2.45  | 2.2                | 2.6  | 275                                                      | 600  | 70                                  | 100  | -3.5                                                                                                 | -1.6 | 0    | 450                                                                       | 6.0                                                                                                                                             |
| 2V7                  | 2.65                                                             | 2.75  | 2.5                | 2.9  | 300                                                      | 600  | 75                                  | 100  | -3.5                                                                                                 | -2.0 | 0    | 450                                                                       | 6.0                                                                                                                                             |
| 3V0                  | 2.94                                                             | 3.06  | 2.8                | 3.2  | 325                                                      | 600  | 80                                  | 95   | -3.5                                                                                                 | -2.1 | 0    | 450                                                                       | 6.0                                                                                                                                             |
| 3V3                  | 3.23                                                             | 3.37  | 3.1                | 3.5  | 350                                                      | 600  | 85                                  | 95   | -3.5                                                                                                 | -2.4 | 0    | 450                                                                       | 6.0                                                                                                                                             |
| 3V6                  | 3.53                                                             | 3.67  | 3.4                | 3.8  | 375                                                      | 600  | 85                                  | 90   | -3.5                                                                                                 | -2.4 | 0    | 450                                                                       | 6.0                                                                                                                                             |
| 3V9                  | 3.82                                                             | 3.98  | 3.7                | 4.1  | 400                                                      | 600  | 85                                  | 90   | -3.5                                                                                                 | -2.5 | 0    | 450                                                                       | 6.0                                                                                                                                             |
| 4V3                  | 4.21                                                             | 4.39  | 4.0                | 4.6  | 410                                                      | 600  | 80                                  | 90   | -3.5                                                                                                 | -2.5 | 0    | 450                                                                       | 6.0                                                                                                                                             |
| 4V7                  | 4.61                                                             | 4.79  | 4.4                | 5.0  | 425                                                      | 500  | 50                                  | 80   | -3.5                                                                                                 | -1.4 | 0.2  | 300                                                                       | 6.0                                                                                                                                             |
| 5V1                  | 5.00                                                             | 5.20  | 4.8                | 5.4  | 400                                                      | 480  | 40                                  | 60   | -2.7                                                                                                 | -0.8 | 1.2  | 300                                                                       | 6.0                                                                                                                                             |
| 5V6                  | 5.49                                                             | 5.71  | 5.2                | 6.0  | 80                                                       | 400  | 15                                  | 40   | -2.0                                                                                                 | 1.2  | 2.5  | 300                                                                       | 6.0                                                                                                                                             |
| 6V2                  | 6.08                                                             | 6.32  | 5.8                | 6.6  | 40                                                       | 150  | 6                                   | 10   | 0.4                                                                                                  | 2.3  | 3.7  | 200                                                                       | 6.0                                                                                                                                             |
| 6V8                  | 6.66                                                             | 6.94  | 6.4                | 7.2  | 30                                                       | 80   | 6                                   | 15   | 1.2                                                                                                  | 3.0  | 4.5  | 200                                                                       | 6.0                                                                                                                                             |
| 7V5                  | 7.35                                                             | 7.65  | 7.0                | 7.9  | 30                                                       | 80   | 6                                   | 15   | 2.5                                                                                                  | 4.0  | 5.3  | 150                                                                       | 4.0                                                                                                                                             |
| 8V2                  | 8.04                                                             | 8.36  | 7.7                | 8.7  | 40                                                       | 80   | 6                                   | 15   | 3.2                                                                                                  | 4.6  | 6.2  | 150                                                                       | 4.0                                                                                                                                             |
| 9V1                  | 8.92                                                             | 9.28  | 8.5                | 9.6  | 40                                                       | 100  | 6                                   | 15   | 3.8                                                                                                  | 5.5  | 7.0  | 150                                                                       | 3.0                                                                                                                                             |
| 10                   | 9.80                                                             | 10.20 | 9.4                | 10.6 | 50                                                       | 150  | 8                                   | 20   | 4.5                                                                                                  | 6.4  | 8.0  | 90                                                                        | 3.0                                                                                                                                             |
| 11                   | 10.80                                                            | 11.20 | 10.4               | 11.6 | 50                                                       | 150  | 10                                  | 20   | 5.4                                                                                                  | 7.4  | 9.0  | 85                                                                        | 2.5                                                                                                                                             |
| 12                   | 11.80                                                            | 12.20 | 11.4               | 12.7 | 50                                                       | 150  | 10                                  | 25   | 6.0                                                                                                  | 8.4  | 10.0 | 85                                                                        | 2.5                                                                                                                                             |
| 13                   | 12.70                                                            | 13.30 | 12.4               | 14.1 | 50                                                       | 170  | 10                                  | 30   | 7.0                                                                                                  | 9.4  | 11.0 | 80                                                                        | 2.5                                                                                                                                             |
| 15                   | 14.70                                                            | 15.30 | 13.8               | 15.6 | 50                                                       | 200  | 10                                  | 30   | 9.2                                                                                                  | 11.4 | 13.0 | 75                                                                        | 2.0                                                                                                                                             |
| 16                   | 15.70                                                            | 16.30 | 15.3               | 17.1 | 50                                                       | 200  | 10                                  | 40   | 10.4                                                                                                 | 12.4 | 14.0 | 75                                                                        | 1.5                                                                                                                                             |
| 18                   | 17.60                                                            | 18.40 | 16.8               | 19.1 | 50                                                       | 225  | 10                                  | 45   | 12.4                                                                                                 | 14.4 | 16.0 | 70                                                                        | 1.5                                                                                                                                             |
| 20                   | 19.60                                                            | 20.40 | 18.8               | 21.2 | 60                                                       | 225  | 15                                  | 55   | 14.4                                                                                                 | 16.4 | 18.0 | 60                                                                        | 1.5                                                                                                                                             |
| 22                   | 21.60                                                            | 22.40 | 20.8               | 23.3 | 60                                                       | 250  | 20                                  | 55   | 16.4                                                                                                 | 18.4 | 20.0 | 60                                                                        | 1.25                                                                                                                                            |
| 24                   | 23.50                                                            | 24.50 | 22.8               | 25.6 | 60                                                       | 250  | 25                                  | 70   | 18.4                                                                                                 | 20.4 | 22.0 | 55                                                                        | 1.25                                                                                                                                            |

Voltage regulator diodes

BZX384 series

**Table 2** Per type BZX384-**B/C27** to **B/C75**  
 $T_j = 25\text{ }^{\circ}\text{C}$  unless otherwise specified.

| BZX-<br>Bxxx<br>Cxxx | WORKING VOLTAGE $V_Z$ (V)<br>at $I_{Z\text{test}} = 2\text{ mA}$ |       |                    |      | DIFFERENTIAL RESISTANCE<br>$r_{\text{dif}}$ ( $\Omega$ ) |      |                                     |      | TEMPERATURE<br>COEFFICIENT $S_Z$ (mV/K)<br>at $I_{Z\text{test}} = 2\text{ mA}$<br>(see Figs 4 and 5) |      |      | DIODE CAP.<br>$C_d$ (pF)<br>at $f = 1\text{ MHz}$ ;<br>$V_R = 0\text{ V}$ | NON-REPETITIVE<br>PEAK REVERSE<br>CURRENT $I_{ZSM}$ (A)<br>at $t_p = 100\text{ }\mu\text{s}$ ;<br>$T_{\text{amb}} = 25\text{ }^{\circ}\text{C}$ |
|----------------------|------------------------------------------------------------------|-------|--------------------|------|----------------------------------------------------------|------|-------------------------------------|------|------------------------------------------------------------------------------------------------------|------|------|---------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
|                      | Tol. $\pm 2\%$ (B)                                               |       | Tol. $\pm 5\%$ (C) |      | at $I_{Z\text{test}} = 0.5\text{ mA}$                    |      | at $I_{Z\text{test}} = 2\text{ mA}$ |      |                                                                                                      |      |      |                                                                           |                                                                                                                                                 |
|                      | MIN.                                                             | MAX.  | MIN.               | MAX. | TYP.                                                     | MAX. | TYP.                                | MAX. | MIN.                                                                                                 | TYP. | MAX. | MAX.                                                                      | MAX.                                                                                                                                            |
| 27                   | 26.50                                                            | 27.50 | 25.1               | 28.9 | 65                                                       | 300  | 25                                  | 80   | 21.4                                                                                                 | 23.4 | 25.3 | 50                                                                        | 1.0                                                                                                                                             |
| 30                   | 29.40                                                            | 30.60 | 28.0               | 32.0 | 70                                                       | 300  | 30                                  | 80   | 24.4                                                                                                 | 26.6 | 29.4 | 50                                                                        | 1.0                                                                                                                                             |
| 33                   | 32.30                                                            | 33.70 | 31.0               | 35.0 | 75                                                       | 325  | 35                                  | 80   | 27.4                                                                                                 | 29.7 | 33.4 | 45                                                                        | 0.9                                                                                                                                             |
| 36                   | 35.30                                                            | 36.70 | 34.0               | 38.0 | 80                                                       | 350  | 35                                  | 90   | 30.4                                                                                                 | 33.0 | 37.4 | 45                                                                        | 0.8                                                                                                                                             |
| 39                   | 38.20                                                            | 39.80 | 37.0               | 41.0 | 80                                                       | 350  | 40                                  | 130  | 33.4                                                                                                 | 36.4 | 41.2 | 45                                                                        | 0.7                                                                                                                                             |
| 43                   | 42.10                                                            | 43.90 | 40.0               | 46.0 | 85                                                       | 375  | 45                                  | 150  | 37.6                                                                                                 | 41.2 | 46.6 | 40                                                                        | 0.6                                                                                                                                             |
| 47                   | 46.10                                                            | 47.90 | 44.0               | 50.0 | 85                                                       | 375  | 50                                  | 170  | 42.0                                                                                                 | 46.1 | 51.8 | 40                                                                        | 0.5                                                                                                                                             |
| 51                   | 50.00                                                            | 52.00 | 48.0               | 54.0 | 90                                                       | 400  | 60                                  | 180  | 46.6                                                                                                 | 51.0 | 57.2 | 40                                                                        | 0.4                                                                                                                                             |
| 56                   | 54.90                                                            | 57.10 | 52.0               | 60.0 | 100                                                      | 425  | 70                                  | 200  | 52.2                                                                                                 | 57.0 | 63.8 | 40                                                                        | 0.3                                                                                                                                             |
| 62                   | 60.80                                                            | 63.20 | 58.0               | 66.0 | 120                                                      | 450  | 80                                  | 215  | 58.8                                                                                                 | 64.4 | 71.6 | 35                                                                        | 0.3                                                                                                                                             |
| 68                   | 66.60                                                            | 69.40 | 64.0               | 72.0 | 150                                                      | 475  | 90                                  | 240  | 65.6                                                                                                 | 71.7 | 79.8 | 35                                                                        | 0.25                                                                                                                                            |
| 75                   | 73.50                                                            | 76.50 | 70.0               | 79.0 | 170                                                      | 500  | 95                                  | 255  | 73.4                                                                                                 | 80.2 | 88.6 | 35                                                                        | 0.2                                                                                                                                             |

## Voltage regulator diodes

## BZX384 series

**THERMAL CHARACTERISTICS**

| SYMBOL        | PARAMETER                                           | CONDITIONS | VALUE | UNIT |
|---------------|-----------------------------------------------------|------------|-------|------|
| $R_{th(j-a)}$ | thermal resistance from junction to ambient         | note 1     | 415   | K/W  |
| $R_{th(j-s)}$ | thermal resistance from junction to soldering point | note 2     | 110   | K/W  |

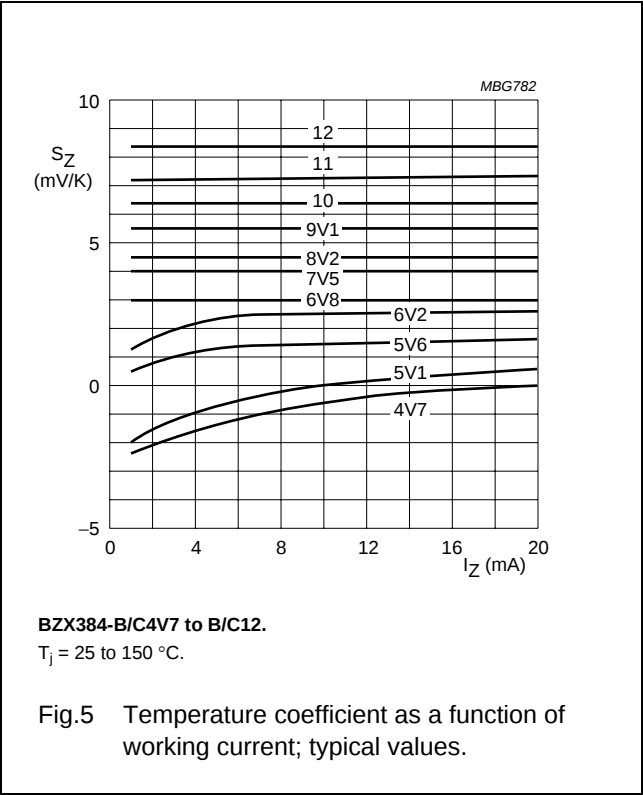
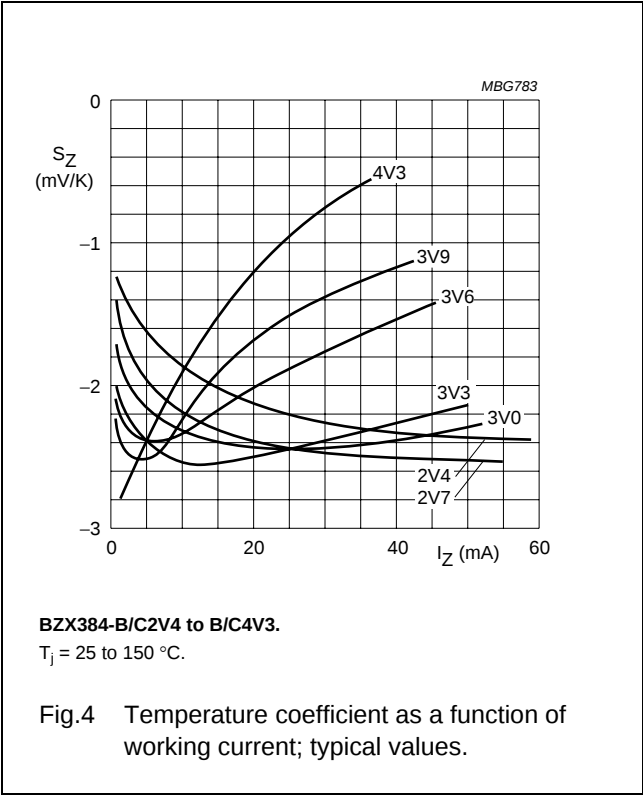
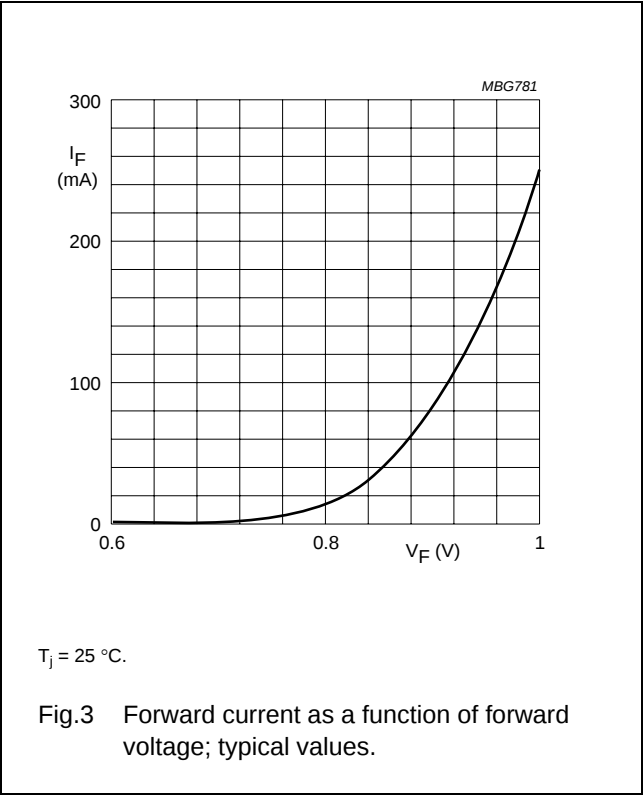
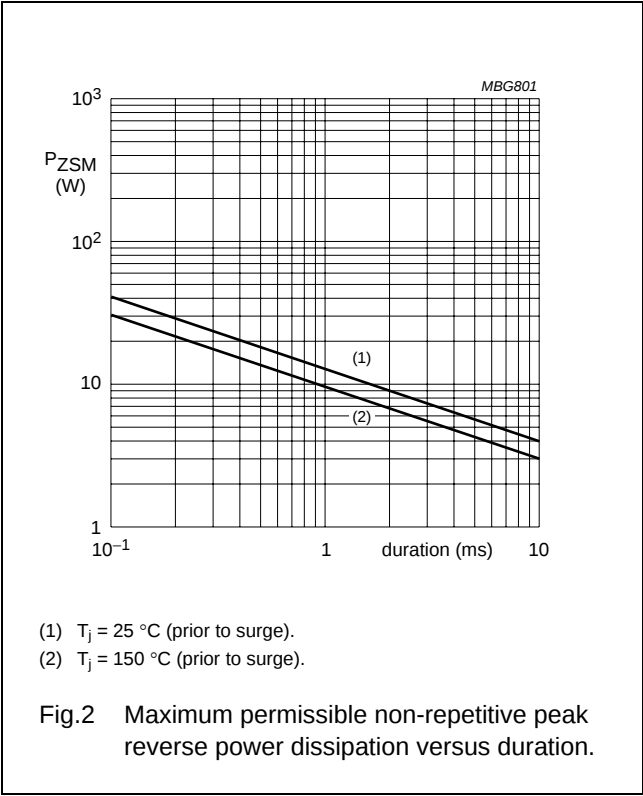
**Notes**

1. Device mounted on an FR4 printed-circuit board.
2. Soldering point of the cathode tab.

Voltage regulator diodes

BZX384 series

GRAPHICAL DATA



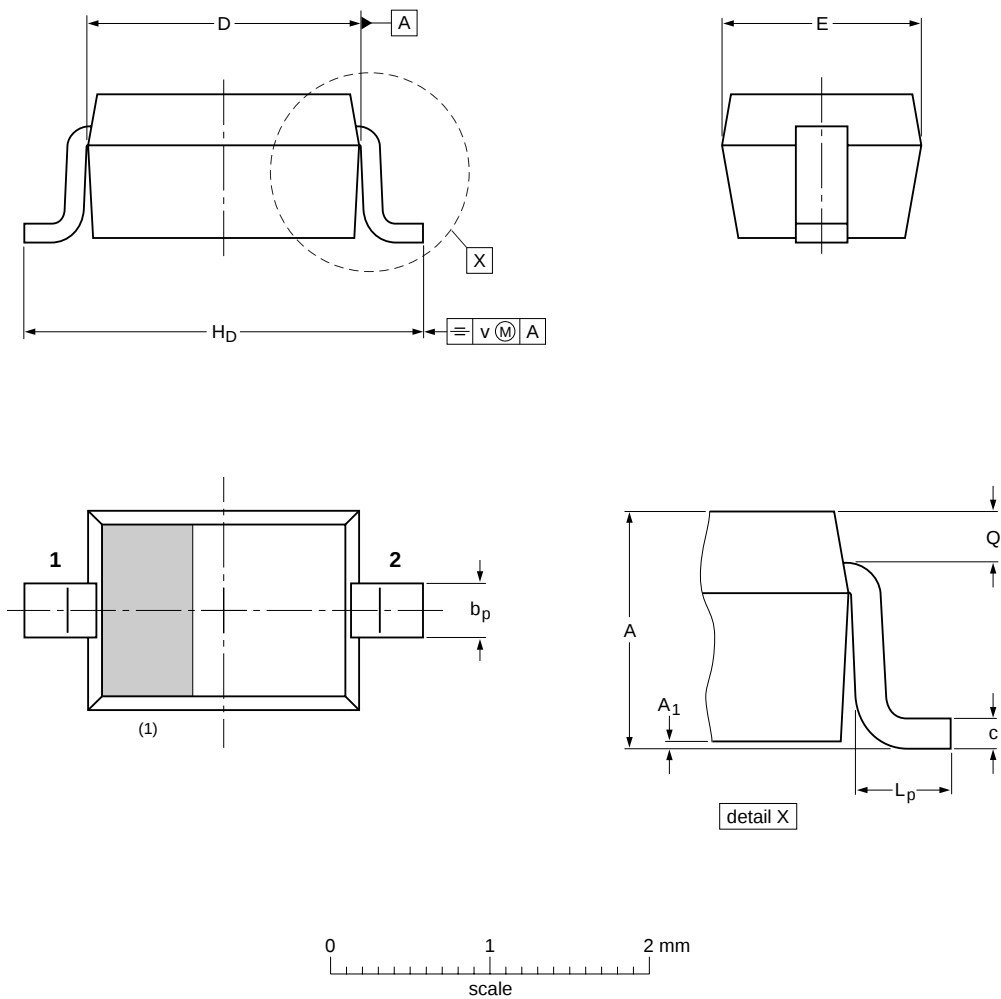
Voltage regulator diodes

BZX384 series

PACKAGE OUTLINE

Plastic surface-mounted package; 2 leads

SOD323



DIMENSIONS (mm are the original dimensions)

| UNIT | A          | A <sub>1</sub><br>max | b <sub>p</sub> | c            | D          | E            | H <sub>D</sub> | L <sub>p</sub> | Q            | v   |
|------|------------|-----------------------|----------------|--------------|------------|--------------|----------------|----------------|--------------|-----|
| mm   | 1.1<br>0.8 | 0.05                  | 0.40<br>0.25   | 0.25<br>0.10 | 1.8<br>1.6 | 1.35<br>1.15 | 2.7<br>2.3     | 0.45<br>0.15   | 0.25<br>0.15 | 0.2 |

Note  
1. The marking bar indicates the cathode

| OUTLINE<br>VERSION | REFERENCES |       |       |  | EUROPEAN<br>PROJECTION | ISSUE DATE                      |
|--------------------|------------|-------|-------|--|------------------------|---------------------------------|
|                    | IEC        | JEDEC | JEITA |  |                        |                                 |
| SOD323             |            |       | SC-76 |  |                        | <del>03-12-17</del><br>06-03-16 |

## Voltage regulator diodes

## BZX384 series

## DATA SHEET STATUS

| DOCUMENT STATUS <sup>(1)</sup> | PRODUCT STATUS <sup>(2)</sup> | DEFINITION                                                                            |
|--------------------------------|-------------------------------|---------------------------------------------------------------------------------------|
| Objective data sheet           | Development                   | This document contains data from the objective specification for product development. |
| Preliminary data sheet         | Qualification                 | This document contains data from the preliminary specification.                       |
| Product data sheet             | Production                    | This document contains the product specification.                                     |

## Notes

1. Please consult the most recently issued document before initiating or completing a design.
2. The product status of device(s) described in this document may have changed since this document was published and may differ in case of multiple devices. The latest product status information is available on the Internet at URL <http://www.nxp.com>.

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# ***NXP Semiconductors***

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## **Contact information**

For additional information please visit: **<http://www.nxp.com>**

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