

BZX384-Q series

Voltage regulator diodes

Rev. 1 — 6 September 2021

Product data sheet

1. General description

Low-power voltage regulator diodes in a small SOD323 (SC-76) Surface-Mounted Device (SMD) plastic package.

The diodes are available in the normalized E24 $\pm 1\%$ (BZX384-A), $\pm 2\%$ (BZX384-B) and approximately $\pm 5\%$ (BZX384-C) tolerance range. The series includes 37 breakdown voltages with nominal working voltages from 2.4 V to 75 V.

2. Features and benefits

- Total power dissipation: ≤ 300 mW
- Three tolerance series: $\pm 1\%$, $\pm 2\%$ and approximately $\pm 5\%$
- Working voltage range: nominal 2.4 V to 75 V (E24 range)
- Non-repetitive peak reverse power dissipation: ≤ 40 W
- Qualified according to AEC-Q101 and recommended for use in automotive applications

3. Applications

- General regulation functions

4. Quick reference data

Table 1. Quick reference data

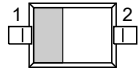
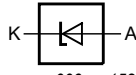
| Symbol | Parameter | Conditions | Min | Typ | Max | Unit |
|-----------|-------------------------|----------------------|-------|-----|-----|------|
| V_F | forward voltage | $I_F = 10$ mA | [1] - | - | 0.9 | V |
| P_{tot} | total power dissipation | $T_{amb} \leq 25$ °C | [2] - | - | 300 | mW |

[1] Pulse test: $t_p \leq 100$ μ s; $\delta \leq 0.02$.

[2] Device mounted on an FR4 Printed-Circuit Board (PCB), single-sided copper, tin-plated and standard footprint.

5. Pinning information

Table 2. Pinning

| Pin | Symbol | Description | | Simplified outline | Graphic symbol |
|-----|--------|-------------|-----|--|--|
| 1 | K | cathode | [1] |  |  006aaa152 |
| 2 | A | anode | | | |

[1] The marking bar indicates the cathode.

6. Ordering information

Table 3. Ordering information

| Type number | Package | | |
|--------------------|---------|--|---------|
| | Name | Description | Version |
| BZX384-Q series[1] | SC-76 | plastic surface-mounted package; 2 leads | SOD323 |

[1] The series consists of 111 types with 37 breakdown voltages with nominal working voltages from 2.4 V to 75 V and $\pm 1\%$, $\pm 2\%$ and $\pm 5\%$ tolerances.

7. Marking

Table 4. Marking codes

| Type number | Marking code | Type number | Marking code | Type number | Marking code |
|---------------|--------------|---------------|--------------|---------------|--------------|
| BZX384-A2V4-Q | 2B | BZX384-B2V4-Q | K1 | BZX384-C2V4-Q | T3 |
| BZX384-A2V7-Q | 2U | BZX384-B2V7-Q | K2 | BZX384-C2V7-Q | T4 |
| BZX384-A3V0-Q | 2V | BZX384-B3V0-Q | K3 | BZX384-C3V0-Q | T5 |
| BZX384-A3V3-Q | 2W | BZX384-B3V3-Q | K4 | BZX384-C3V3-Q | T6 |
| BZX384-A3V6-Q | 2X | BZX384-B3V6-Q | K5 | BZX384-C3V6-Q | T7 |
| BZX384-A3V9-Q | 2Y | BZX384-B3V9-Q | K6 | BZX384-C3V9-Q | T8 |
| BZX384-A4V3-Q | 2Z | BZX384-B4V3-Q | K7 | BZX384-C4V3-Q | T9 |
| BZX384-A4V7-Q | 22 | BZX384-B4V7-Q | K8 | BZX384-C4V7-Q | T0 |
| BZX384-A5V1-Q | 23 | BZX384-B5V1-Q | K9 | BZX384-C5V1-Q | D5 |
| BZX384-A5V6-Q | 24 | BZX384-B5V6-Q | L1 | BZX384-C5V6-Q | D6 |
| BZX384-A6V2-Q | 25 | BZX384-B6V2-Q | L2 | BZX384-C6V2-Q | T1 |
| BZX384-A6V8-Q | 26 | BZX384-B6V8-Q | L3 | BZX384-C6V8-Q | D7 |
| BZX384-A7V5-Q | 27 | BZX384-B7V5-Q | L4 | BZX384-C7V5-Q | D8 |
| BZX384-A8V2-Q | 28 | BZX384-B8V2-Q | L5 | BZX384-C8V2-Q | D9 |
| BZX384-A9V1-Q | 29 | BZX384-B9V1-Q | L6 | BZX384-C9V1-Q | D0 |
| BZX384-A10-Q | 3X | BZX384-B10-Q | L7 | BZX384-C10-Q | T2 |
| BZX384-A11-Q | 32 | BZX384-B11-Q | L8 | BZX384-C11-Q | DA |
| BZX384-A12-Q | 33 | BZX384-B12-Q | L9 | BZX384-C12-Q | DB |
| BZX384-A13-Q | 34 | BZX384-B13-Q | M1 | BZX384-C13-Q | DC |
| BZX384-A15-Q | 35 | BZX384-B15-Q | M2 | BZX384-C15-Q | DD |
| BZX384-A16-Q | 36 | BZX384-B16-Q | M3 | BZX384-C16-Q | DE |
| BZX384-A18-Q | 37 | BZX384-B18-Q | M4 | BZX384-C18-Q | DF |
| BZX384-A20-Q | 38 | BZX384-B20-Q | M5 | BZX384-C20-Q | DG |
| BZX384-A22-Q | 39 | BZX384-B22-Q | M6 | BZX384-C22-Q | DH |
| BZX384-A24-Q | 4N | BZX384-B24-Q | M7 | BZX384-C24-Q | DJ |
| BZX384-A27-Q | 4P | BZX384-B27-Q | M8 | BZX384-C27-Q | DK |
| BZX384-A30-Q | 5F | BZX384-B30-Q | M9 | BZX384-C30-Q | DL |
| BZX384-A33-Q | 4R | BZX384-B33-Q | N0 | BZX384-C33-Q | DM |
| BZX384-A36-Q | 4S | BZX384-B36-Q | N1 | BZX384-C36-Q | DN |
| BZX384-A39-Q | 4T | BZX384-B39-Q | N2 | BZX384-C39-Q | DP |
| BZX384-A43-Q | 4U | BZX384-B43-Q | N3 | BZX384-C43-Q | DR |
| BZX384-A47-Q | 4V | BZX384-B47-Q | N4 | BZX384-C47-Q | DS |
| BZX384-A51-Q | 4W | BZX384-B51-Q | N5 | BZX384-C51-Q | DT |
| BZX384-A56-Q | 4X | BZX384-B56-Q | N6 | BZX384-C56-Q | DU |
| BZX384-A62-Q | 4Y | BZX384-B62-Q | N7 | BZX384-C62-Q | DV |
| BZX384-A68-Q | 4Z | BZX384-B68-Q | N8 | BZX384-C68-Q | DW |
| BZX384-A75-Q | 42 | BZX384-B75-Q | N9 | BZX384-C75-Q | DX |

8. Limiting values

Table 5. Limiting values

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

| Symbol | Parameter | Conditions | Min | Max | Unit |
|-----------|---|-----------------------------|-------|--------------------|------|
| I_F | forward current | | - | 250 | mA |
| I_{ZSM} | non-repetitive peak reverse current | | [1] - | see Tables 8 and 9 | |
| P_{ZSM} | non-repetitive peak reverse power dissipation | | [1] - | 40 | W |
| P_{tot} | total power dissipation | $T_{amb} \leq 25\text{ °C}$ | [2] - | 300 | mW |
| T_j | junction temperature | | - | 150 | °C |
| T_{amb} | ambient temperature | | -65 | +150 | °C |
| T_{stg} | storage temperature | | -65 | +150 | °C |

[1] $t_p = 100\ \mu\text{s}$; square wave; $T_j = 25\text{ °C}$ prior to surge.

[2] Device mounted on an FR4 PCB, single-sided copper, tin-plated and standard footprint.

9. Thermal characteristics

Table 6. Thermal characteristics

| Symbol | Parameter | Conditions | Min | Typ | Max | Unit |
|----------------|--|-------------|-------|-----|-----|------|
| $R_{th(j-a)}$ | thermal resistance from junction to ambient | in free air | [1] - | - | 415 | K/W |
| $R_{th(j-sp)}$ | thermal resistance from junction to solder point | | [2] - | - | 110 | K/W |

[1] Device mounted on an FR4 PCB, single-sided copper, tin-plated and standard footprint.

[2] Soldering point of cathode tab.

10. Characteristics

Table 7. Characteristics

$T_j = 25\text{ °C}$ unless otherwise specified.

| Symbol | Parameter | Conditions | Min | Typ | Max | Unit |
|--------|-----------------|-----------------------|-------|-----|-----|------|
| V_F | forward voltage | $I_F = 10\text{ mA}$ | [1] - | - | 0.9 | V |
| | | $I_F = 100\text{ mA}$ | [1] - | - | 1.1 | V |

[1] Pulse test: $t_p \leq 100\ \mu\text{s}$; $\delta \leq 0.02$.

Table 8. Characteristics per type; BZX384-A2V4-Q to BZX384-C24-Q

 $T_j = 25\text{ °C}$ unless otherwise specified.

| BZX384 -xxx | Sel | Working voltage V_Z (V) $I_Z = 5\text{ mA}$ | | Maximum differential resistance r_{dif} (Ω) | | Reverse current I_R (μA) | | Temperature coefficient S_Z (mV/K) $I_Z = 5\text{ mA}$ | | Diode capacitance C_d (pF) [1] | Non-repetitive peak reverse current I_{ZSM} (A) [2] |
|----------------|-----|---|------|--|---------------------|--|-----------|--|-----|-------------------------------------|--|
| | | Min | Max | $I_Z = 1\text{ mA}$ | $I_Z = 5\text{ mA}$ | Max | V_R (V) | Min | Max | Max | Max |
| 2V4-Q | A | 2.37 | 2.43 | 600 | 100 | 50 | 1 | -3.5 | 0.0 | 450 | 6.0 |
| | B | 2.35 | 2.45 | | | | | | | | |
| | C | 2.20 | 2.60 | | | | | | | | |
| 2V7-Q | A | 2.67 | 2.73 | 600 | 100 | 20 | 1 | -3.5 | 0.0 | 450 | 6.0 |
| | B | 2.65 | 2.75 | | | | | | | | |
| | C | 2.50 | 2.90 | | | | | | | | |
| 3V0-Q | A | 2.97 | 3.03 | 600 | 95 | 10 | 1 | -3.5 | 0.0 | 450 | 6.0 |
| | B | 2.94 | 3.06 | | | | | | | | |
| | C | 2.80 | 3.20 | | | | | | | | |
| 3V3-Q | A | 3.26 | 3.34 | 600 | 95 | 5 | 1 | -3.5 | 0.0 | 450 | 6.0 |
| | B | 3.23 | 3.37 | | | | | | | | |
| | C | 3.10 | 3.50 | | | | | | | | |
| 3V6-Q | A | 3.56 | 3.64 | 600 | 90 | 5 | 1 | -3.5 | 0.0 | 450 | 6.0 |
| | B | 3.53 | 3.67 | | | | | | | | |
| | C | 3.40 | 3.80 | | | | | | | | |
| 3V9-Q | A | 3.86 | 3.94 | 600 | 90 | 3 | 1 | -3.5 | 0.0 | 450 | 6.0 |
| | B | 3.82 | 3.98 | | | | | | | | |
| | C | 3.70 | 4.10 | | | | | | | | |
| 4V3-Q | A | 4.25 | 4.35 | 600 | 90 | 3 | 1 | -3.5 | 0.0 | 450 | 6.0 |
| | B | 4.21 | 4.39 | | | | | | | | |
| | C | 4.00 | 4.60 | | | | | | | | |
| 4V7-Q | A | 4.65 | 4.75 | 500 | 80 | 3 | 2 | -3.5 | 0.2 | 300 | 6.0 |
| | B | 4.61 | 4.79 | | | | | | | | |
| | C | 4.40 | 5.00 | | | | | | | | |
| 5V1-Q | A | 5.04 | 5.16 | 480 | 60 | 2 | 2 | -2.7 | 1.2 | 300 | 6.0 |
| | B | 5.00 | 5.20 | | | | | | | | |
| | C | 4.80 | 5.40 | | | | | | | | |
| 5V6-Q | A | 5.54 | 5.66 | 400 | 40 | 1 | 2 | -2.0 | 2.5 | 300 | 6.0 |
| | B | 5.49 | 5.71 | | | | | | | | |
| | C | 5.20 | 6.00 | | | | | | | | |
| 6V2-Q | A | 6.13 | 6.27 | 150 | 10 | 3 | 4 | 0.4 | 3.7 | 200 | 6.0 |
| | B | 6.08 | 6.32 | | | | | | | | |
| | C | 5.80 | 6.60 | | | | | | | | |
| 6V8-Q | A | 6.73 | 6.87 | 80 | 15 | 2 | 4 | 1.2 | 4.5 | 200 | 6.0 |
| | B | 6.66 | 6.94 | | | | | | | | |
| | C | 6.40 | 7.20 | | | | | | | | |
| 7V5-Q | A | 7.42 | 7.58 | 80 | 15 | 1 | 5 | 2.5 | 5.3 | 150 | 4.0 |
| | B | 7.35 | 7.65 | | | | | | | | |
| | C | 7.00 | 7.90 | | | | | | | | |

| BZX384-xxx | Sel | Working voltage V_Z (V) $I_Z = 5$ mA | | Maximum differential resistance r_{dif} (Ω) | | Reverse current I_R (μ A) | | Temperature coefficient S_Z (mV/K) $I_Z = 5$ mA | | Diode capacitance C_d (pF) [1] | Non-repetitive peak reverse current I_{ZSM} (A) [2] |
|------------|-----|--|-------|---|--------------|-------------------------------------|-----------|---|------|-------------------------------------|--|
| | | Min | Max | $I_Z = 1$ mA | $I_Z = 5$ mA | Max | V_R (V) | Min | Max | Max | Max |
| 8V2-Q | A | 8.11 | 8.29 | 80 | 15 | 0.7 | 5 | 3.2 | 6.2 | 150 | 4.0 |
| | B | 8.04 | 8.36 | | | | | | | | |
| | C | 7.70 | 8.70 | | | | | | | | |
| 9V1-Q | A | 9.00 | 9.20 | 100 | 15 | 0.5 | 6 | 3.8 | 7.0 | 150 | 3.0 |
| | B | 8.92 | 9.28 | | | | | | | | |
| | C | 8.50 | 9.60 | | | | | | | | |
| 10-Q | A | 9.90 | 10.10 | 150 | 20 | 0.2 | 7 | 4.5 | 8.0 | 90 | 3.0 |
| | B | 9.80 | 10.20 | | | | | | | | |
| | C | 9.40 | 10.60 | | | | | | | | |
| 11-Q | A | 10.89 | 11.11 | 150 | 20 | 0.1 | 8 | 5.4 | 9.0 | 85 | 2.5 |
| | B | 10.80 | 11.20 | | | | | | | | |
| | C | 10.40 | 11.60 | | | | | | | | |
| 12-Q | A | 11.88 | 12.12 | 150 | 25 | 0.1 | 8 | 6.0 | 10.0 | 85 | 2.5 |
| | B | 11.80 | 12.20 | | | | | | | | |
| | C | 11.40 | 12.70 | | | | | | | | |
| 13-Q | A | 12.87 | 13.13 | 170 | 30 | 0.1 | 8 | 7.0 | 11.0 | 80 | 2.5 |
| | B | 12.70 | 13.30 | | | | | | | | |
| | C | 12.40 | 14.10 | | | | | | | | |
| 15-Q | A | 14.85 | 15.15 | 200 | 30 | 0.05 | 10.5 | 9.2 | 13.0 | 75 | 2.0 |
| | B | 14.70 | 15.30 | | | | | | | | |
| | C | 13.80 | 15.60 | | | | | | | | |
| 16-Q | A | 15.84 | 16.16 | 200 | 40 | 0.05 | 11.2 | 10.4 | 14.0 | 75 | 1.5 |
| | B | 15.70 | 16.30 | | | | | | | | |
| | C | 15.30 | 17.10 | | | | | | | | |
| 18-Q | A | 17.82 | 18.18 | 225 | 45 | 0.05 | 12.6 | 12.4 | 16.0 | 70 | 1.5 |
| | B | 17.60 | 18.40 | | | | | | | | |
| | C | 16.80 | 19.10 | | | | | | | | |
| 20-Q | A | 19.80 | 20.20 | 225 | 55 | 0.05 | 14 | 14.4 | 18.0 | 60 | 1.5 |
| | B | 19.60 | 20.40 | | | | | | | | |
| | C | 18.80 | 21.20 | | | | | | | | |
| 22-Q | A | 21.78 | 22.22 | 250 | 55 | 0.05 | 15.4 | 16.4 | 20.0 | 60 | 1.25 |
| | B | 21.60 | 22.40 | | | | | | | | |
| | C | 20.80 | 23.30 | | | | | | | | |
| 24-Q | A | 23.76 | 24.24 | 250 | 70 | 0.05 | 16.8 | 18.4 | 22.0 | 55 | 1.25 |
| | B | 23.50 | 24.50 | | | | | | | | |
| | C | 22.80 | 25.60 | | | | | | | | |

[1] $f = 1$ MHz; $V_R = 0$ V

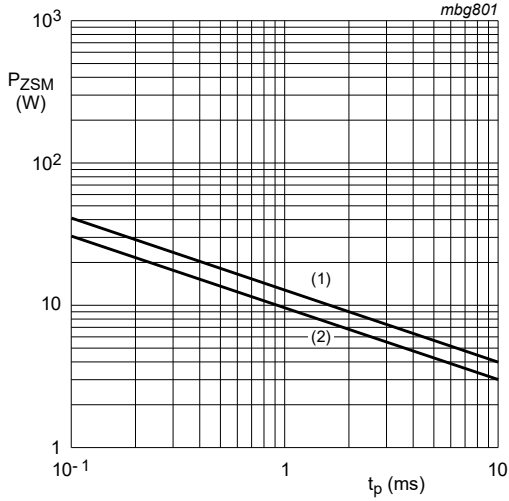
[2] $t_p = 100$ μ s; square wave; $T_j = 25$ °C

Table 9. Characteristics per type; BZX384-A27-Q to BZX384-C75-Q

 $T_j = 25\text{ °C}$ unless otherwise specified.

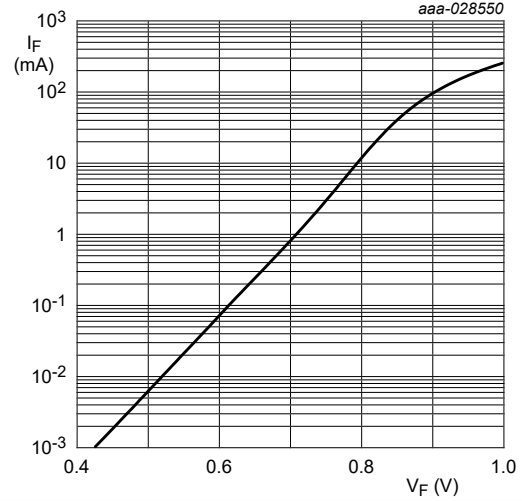
| BZX384 -xxx | Sel | Working voltage V_Z (V) $I_Z = 2\text{ mA}$ | | Maximum differential resistance r_{dif} (Ω) | | Reverse current I_R (μA) | | Temperature coefficient S_Z (mV/K) $I_Z = 2\text{ mA}$ | | Diode capacitance C_d (pF) [1] | Non-repetitive peak reverse current I_{ZSM} (A) [2] |
|----------------|-----|---|-------|--|---------------------|--|-----------|--|------|-------------------------------------|--|
| | | Min | Max | $I_Z = 0.5\text{ mA}$ | $I_Z = 2\text{ mA}$ | Max | V_R (V) | Min | Max | Max | Max |
| 27-Q | A | 26.73 | 27.27 | 300 | 80 | 0.05 | 18.9 | 21.4 | 25.3 | 50 | 1.0 |
| | B | 26.50 | 27.50 | | | | | | | | |
| | C | 25.10 | 28.90 | | | | | | | | |
| 30-Q | A | 29.70 | 30.30 | 300 | 80 | 0.05 | 21 | 24.4 | 29.4 | 50 | 1.0 |
| | B | 29.40 | 30.60 | | | | | | | | |
| | C | 28.00 | 32.00 | | | | | | | | |
| 33-Q | A | 32.67 | 33.33 | 325 | 80 | 0.05 | 23.1 | 27.4 | 33.4 | 45 | 0.9 |
| | B | 32.30 | 33.70 | | | | | | | | |
| | C | 31.00 | 35.00 | | | | | | | | |
| 36-Q | A | 35.64 | 36.36 | 350 | 90 | 0.05 | 25.2 | 30.4 | 37.4 | 45 | 0.8 |
| | B | 35.30 | 36.70 | | | | | | | | |
| | C | 34.00 | 38.00 | | | | | | | | |
| 39-Q | A | 38.61 | 39.39 | 350 | 130 | 0.05 | 27.3 | 33.4 | 41.2 | 45 | 0.7 |
| | B | 38.20 | 39.80 | | | | | | | | |
| | C | 37.00 | 41.00 | | | | | | | | |
| 43-Q | A | 42.57 | 43.43 | 375 | 150 | 0.05 | 30.1 | 37.6 | 46.6 | 40 | 0.6 |
| | B | 42.10 | 43.90 | | | | | | | | |
| | C | 40.00 | 46.00 | | | | | | | | |
| 47-Q | A | 46.53 | 47.47 | 375 | 170 | 0.05 | 32.9 | 42.0 | 51.8 | 40 | 0.5 |
| | B | 46.10 | 47.90 | | | | | | | | |
| | C | 44.00 | 50.00 | | | | | | | | |
| 51-Q | A | 50.49 | 51.51 | 400 | 180 | 0.05 | 35.7 | 46.6 | 57.2 | 40 | 0.4 |
| | B | 50.00 | 52.00 | | | | | | | | |
| | C | 48.00 | 54.00 | | | | | | | | |
| 56-Q | A | 55.44 | 56.56 | 425 | 200 | 0.05 | 39.2 | 52.2 | 63.8 | 40 | 0.3 |
| | B | 54.90 | 57.10 | | | | | | | | |
| | C | 52.00 | 60.00 | | | | | | | | |
| 62-Q | A | 61.38 | 62.62 | 450 | 215 | 0.05 | 43.4 | 58.8 | 71.6 | 35 | 0.3 |
| | B | 60.80 | 63.20 | | | | | | | | |
| | C | 58.00 | 66.00 | | | | | | | | |
| 68-Q | A | 67.32 | 68.68 | 475 | 240 | 0.05 | 47.6 | 65.6 | 79.8 | 35 | 0.25 |
| | B | 66.60 | 69.40 | | | | | | | | |
| | C | 64.00 | 72.00 | | | | | | | | |
| 75-Q | A | 74.25 | 75.75 | 500 | 255 | 0.05 | 52.5 | 73.4 | 88.6 | 35 | 0.20 |
| | B | 73.50 | 76.50 | | | | | | | | |
| | C | 70.00 | 79.00 | | | | | | | | |

[1] $f = 1\text{ MHz}$; $V_R = 0\text{ V}$ [2] $t_p = 100\text{ }\mu\text{s}$; square wave; $T_j = 25\text{ °C}$



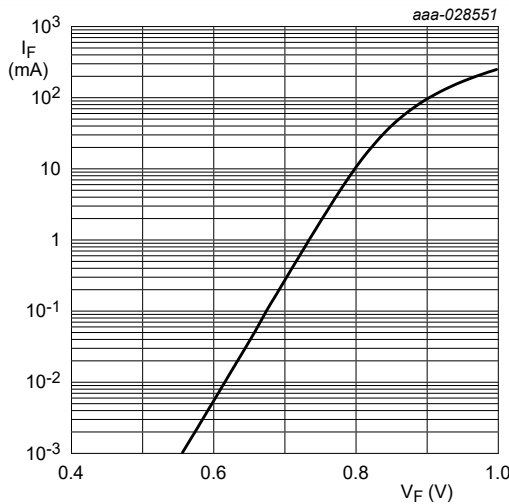
(1) $T_j = 25\text{ °C}$ (before surge)
 (2) $T_j = 150\text{ °C}$ (before surge)

Fig. 1. Non-repetitive peak reverse power dissipation as a function of pulse duration; maximum values



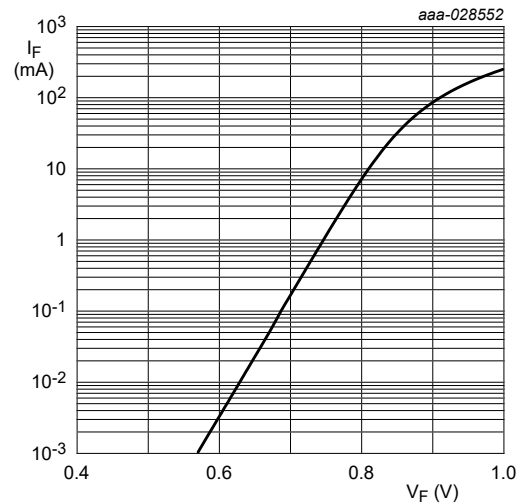
$T_j = 25\text{ °C}$

Fig. 2. Forward current as a function of forward voltage; typical values (BZX384-A/B/C2V4-Q)



$T_j = 25\text{ °C}$

Fig. 3. Forward current as a function of forward voltage; typical values (BZX384-A/B/C6V8-Q)



$T_j = 25\text{ °C}$

Fig. 4. Forward current as a function of forward voltage; typical values (BZX384-A/B/C7V5-Q)

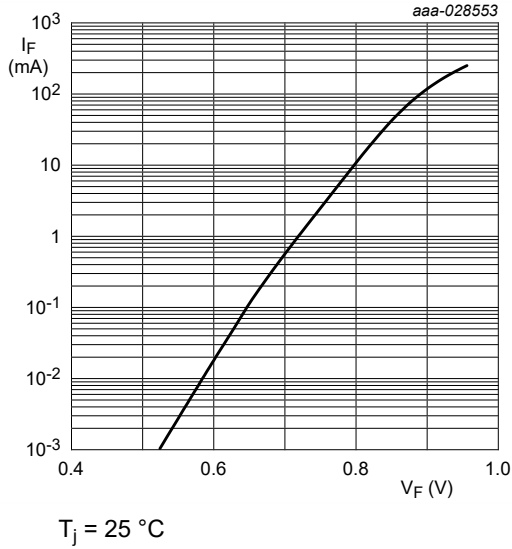


Fig. 5. Forward current as a function of forward voltage; typical values (BZX384-A/B/C75-Q)

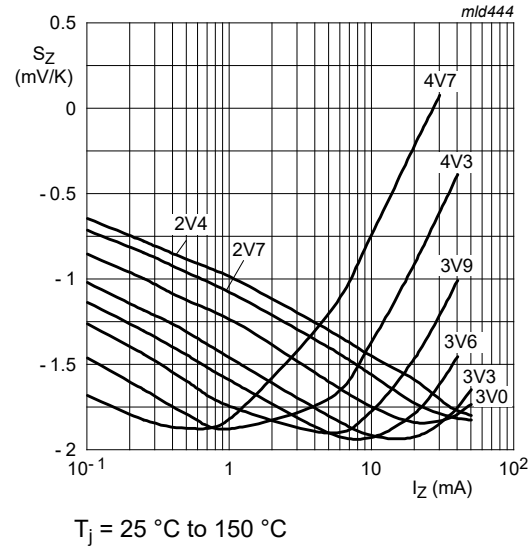


Fig. 6. Temperature coefficient as a function of working current; typical values (BZX384-A/B/C2V4-Q to BZX384-A/B/C4V7-Q)

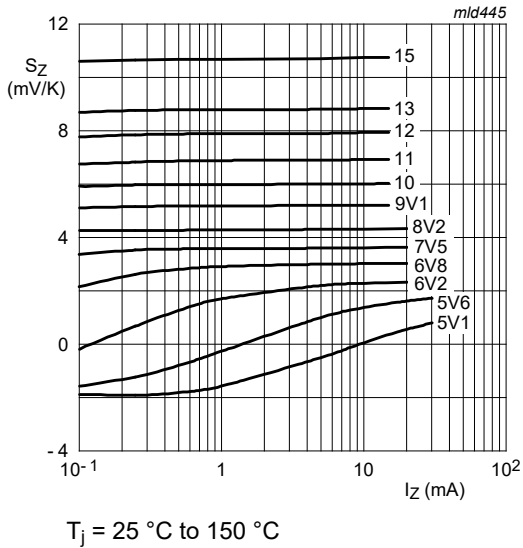


Fig. 7. Temperature coefficient as a function of working current; typical values (BZX384-A/B/C5V1-Q to BZX384-A/B/C15-Q)

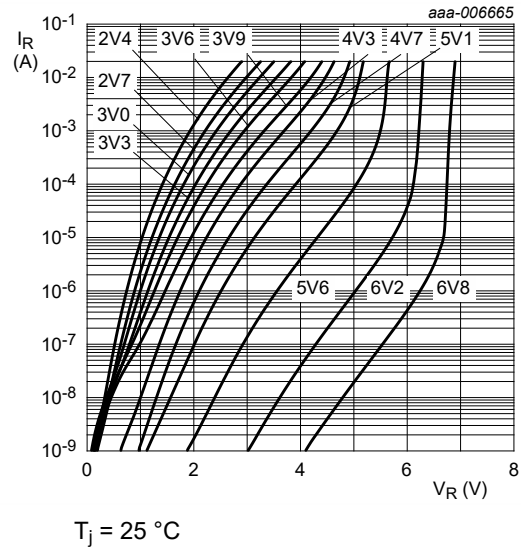
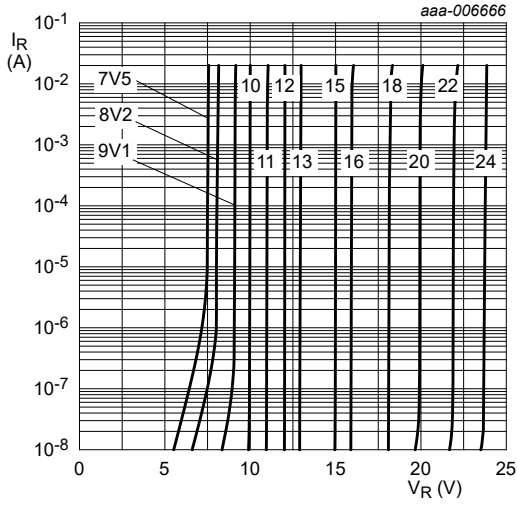
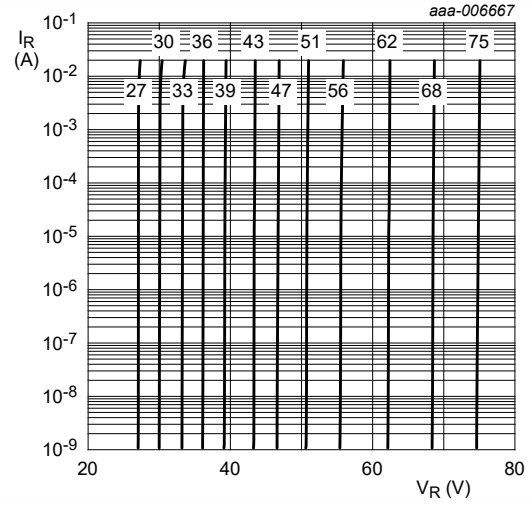


Fig. 8. Reverse current as a function of reverse voltage; typical values (BZX384-A/B/C2V4-Q to BZX384-A/B/C6V8-Q)



$T_j = 25\text{ }^\circ\text{C}$

Fig. 9. Reverse current as a function of reverse voltage; typical values (BZX384-A/B/C7V5-Q to BZX384-A/B/C24-Q)



$T_j = 25\text{ }^\circ\text{C}$

Fig. 10. Reverse current as a function of reverse voltage; typical values (BZX384-A/B/C27-Q to BZX384-A/B/C75-Q)

11. Test information

Quality information

This product has been qualified in accordance with the Automotive Electronics Council (AEC) standard Q101 - *Stress test qualification for discrete semiconductors*, and is suitable for use in automotive applications.

12. Package outline

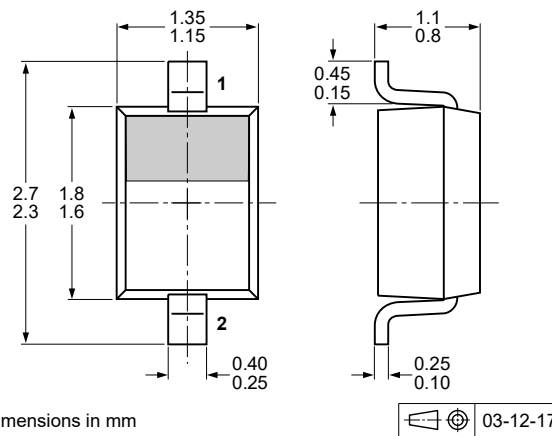


Fig. 11. Package outline SOD323

13. Soldering

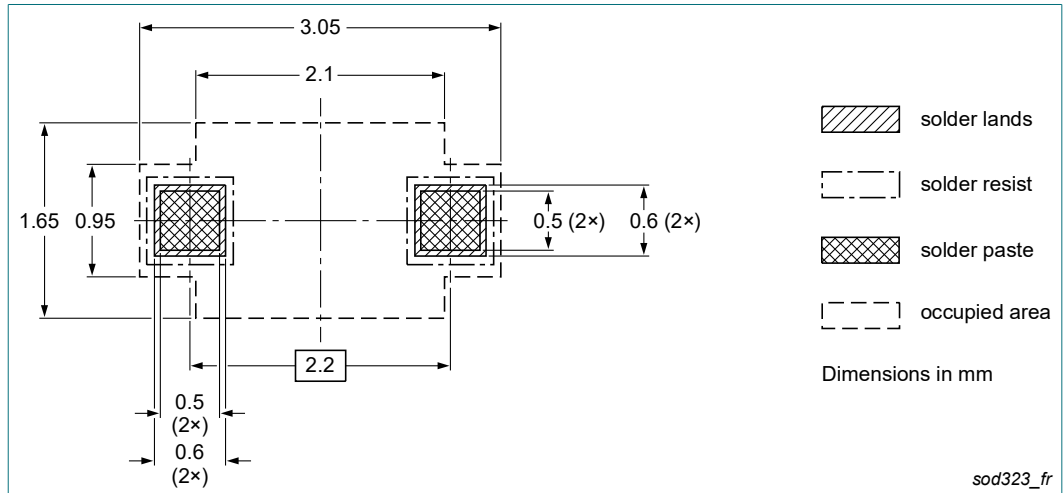


Fig. 12. Reflow soldering footprint for SOD323 (SC-76)

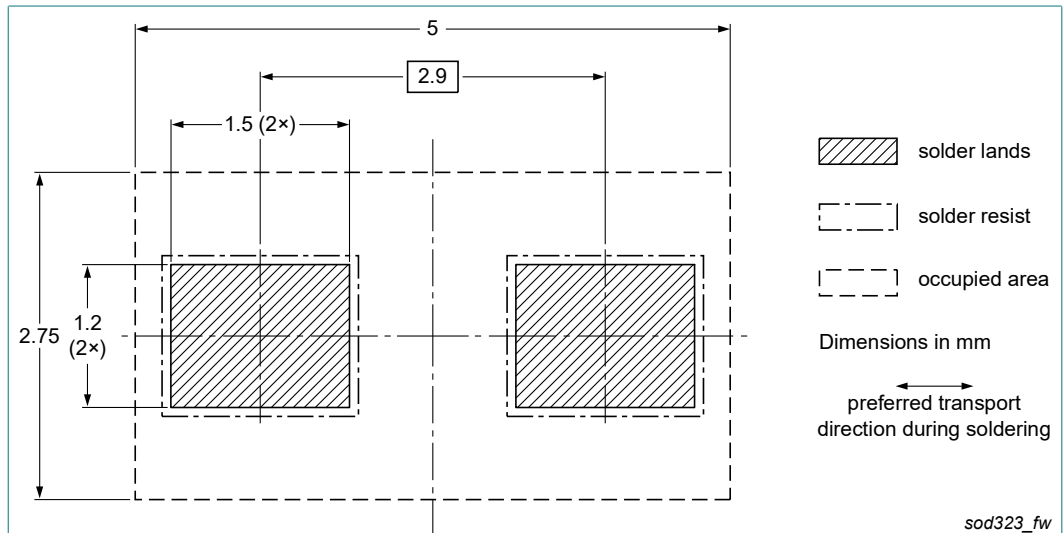


Fig. 13. Wave soldering footprint for SOD323 (SC-76)

14. Revision history

Table 10. Revision history

| Document ID | Release date | Data sheet status | Change notice | Supersedes |
|------------------|--------------|--------------------|---------------|------------|
| BZX384-Q_SER v.1 | 20210906 | Product data sheet | - | - |

15. Legal information

Data sheet status

| Document status [1][2] | Product status [3] | Definition |
|--------------------------------|--------------------|---|
| Objective [short] data sheet | Development | This document contains data from the objective specification for product development. |
| Preliminary [short] data sheet | Qualification | This document contains data from the preliminary specification. |
| Product [short] data sheet | Production | This document contains the product specification. |

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- [2] The term 'short data sheet' is explained in section "Definitions".
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