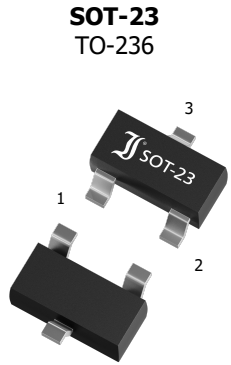
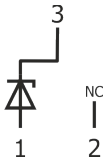


| | |
|---|---|
| BZX84B2V4 ... BZX84B47 SMD Planar Zener Diodes SMD Planar Zener-Dioden | P_{tot} = 300 mW V_Z = 2.4 V ... 47 V T_{jmax} = 150°C |
|---|---|

Version 2021-07-23



SPIICE Model & STEP File ¹⁾



Marking Code
See table | siehe Tabelle

HS Code 85411000

Typical Applications

Voltage stabilization and regulators
(For ESD protection, see ESDxxCA series)
Commercial grade
Suffix -Q: AEC-Q101 compliant ¹⁾
Suffix -AQ: in AEC-Q101 qualification ¹⁾

Features

~ ±2% tolerance of Zener voltage
Sharp Zener voltage breakdown
Low leakage current
Compliant to RoHS, REACH, Conflict Minerals ¹⁾

Mechanical Data ¹⁾

Taped and reeled 3000 / 7"
Weight approx. 0.01 g
Case material UL 94V-0
Solder & assembly conditions 260°C/10s
MSL = 1



Typische Anwendungen

Spannungsstabilisierung und -regler
(Für ESD-Schutz siehe ESDxxCA-Reihe)
Standardausführung
Suffix -Q: AEC-Q101 konform ¹⁾
Suffix -AQ: in AEC-Q101 Qualifikation ¹⁾

Besonderheiten

~ ±2% Toleranz der Zener-Spannung
Scharfer Zenerspannungsabbruch
Niedriger Sperrstrom
Konform zu RoHS, REACH, Konfliktmineralien ¹⁾

Mechanische Daten ¹⁾

Gegurtet auf Rolle
Gewicht ca.
Gehäusematerial
Löt- und Einbaubedingungen

Maximum ratings ²⁾

Grenzwerte ²⁾

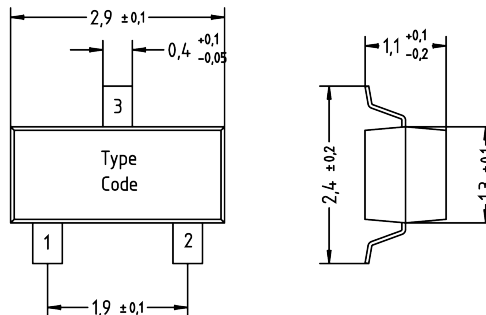
| | | |
|---|------------------|----------------------|
| Total power dissipation Gesamt-Verlustleistung | P _{tot} | 300 mW ³⁾ |
| Junction temperature – Sperrschichttemperatur | T _j | -50...+150°C |
| Storage temperature – Lagerungstemperatur | T _s | -50...+150°C |

Characteristics

Kennwerte

| | | |
|---|------------------|-----------------------|
| Typical thermal resistance junction to ambient Typischer Wärmewiderstand Sperrschicht – Umgebung | R _{thA} | 420 K/W ²⁾ |
|---|------------------|-----------------------|

Dimensions - Maße [mm]



1 Please note the [detailed information on our website](#) or at the beginning of the data book
Bitte beachten Sie die [detaillierten Hinweise auf unserer Internetseite](#) bzw. am Anfang des Datenbuches
2 T_A = 25°C unless otherwise specified – T_A = 25°C wenn nicht anders angegeben
3 Mounted on P.C. board with 3 mm² copper pads at each terminal
Montage auf Leiterplatte mit 3 mm² Kupferbelag (Lötpad an jedem Anschluss)

Characteristics

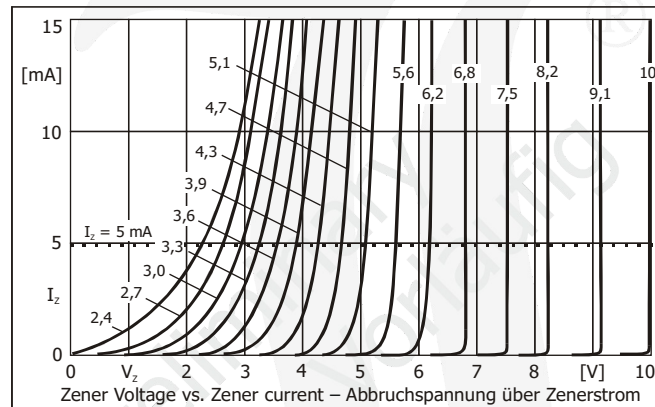
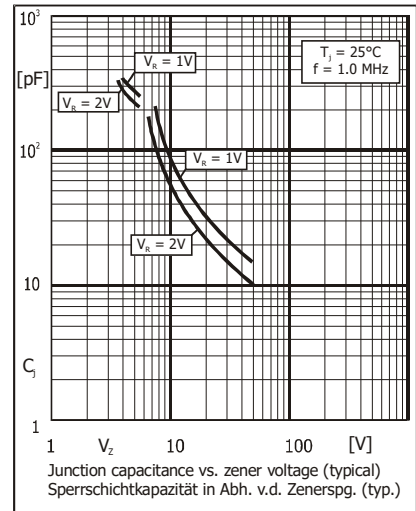
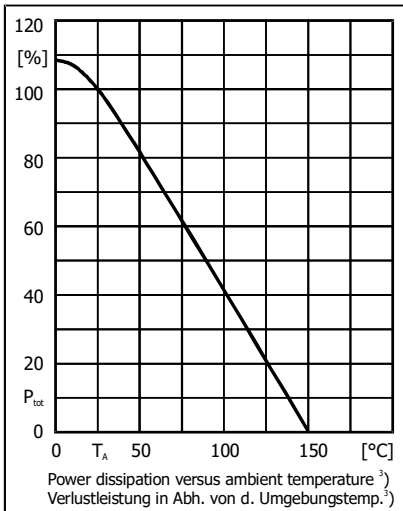
 (T_j = 25°C unless otherwise specified)

Kennwerte

 (T_j = 25°C wenn nicht anders angegeben)

| Type/Typ ^{Q)} -Q ^{A)} -AQ | Code | Z-voltage range ¹⁾ Z-Spannungs-Bereich ¹⁾ I _Z = 5 mA | | Dynamic resistance Diff. Widerstand r _{Zj} [Ω] @ f = 1 kHz I _Z = 5 mA | Temp. Coefficient of Z-voltage ...der Z-Spg. α _{VZ} [10 ⁻⁴ /°C] | Reverse voltage Sperrspannung V _R @ I _R | | Z-current ^{2,3)} Z-Strom ^{2,3)} T _A = 25°C I _{Zmax} [mA] |
|--|------|---|-----------------------|--|--|---|---------------------|---|
| | | V _{Zmin} [V] | V _{Zmax} [V] | | | V _R [V] | I _R [μA] | |
| BZX84B2V4 ^{Q)} | CR | 2.35 | 2.45 | < 85 | -8...-5 | 1 | 20 | 122 |
| BZX84B2V7 ^{Q)} | CX | 2.65 | 2.75 | < 85 | -8...-5 | 1 | 20 | 109 |
| BZX84B3V0 | CY | 2.94 | 3.06 | < 85 | -8...-5 | 1 | 10 | 98 |
| BZX84B3V3 ^{A)} | CZ | 3.23 | 3.37 | < 85 | -8...-5 | 1 | 5 | 89 |
| BZX84B3V6 | DA | 3.53 | 3.67 | < 85 | -8...-5 | 1 | 5 | 82 |
| BZX84B3V9 | DB | 3.82 | 3.98 | < 85 | -8...-5 | 1 | 3 | 75 |
| BZX84B4V3 | DC | 4.21 | 4.39 | < 80 | -7...-4 | 1 | 3 | 68 |
| BZX84B4V7 ^{A)} | DD | 4.61 | 4.79 | < 80 | -5...-2 | 2 | 3 | 63 |
| BZX84B5V1 ^{Q)} | DE | 5.00 | 5.20 | < 60 | -2...+2 | 2 | 2 | 58 |
| BZX84B5V6 ^{Q)} ^{A)} | DF | 5.49 | 5.71 | < 40 | -1...+4 | 2 | 1 | 53 |
| BZX84B6V2 ^{Q)} | DH | 6.08 | 6.32 | < 10 | +2...+5 | 4 | 3 | 47 |
| BZX84B6V8 ^{Q)} | DJ | 6.66 | 6.94 | < 15 | +3...+6 | 4 | 2 | 43 |
| BZX84B7V5 ^{Q)} | DK | 7.35 | 7.65 | < 15 | +3...+6 | 5 | 1 | 39 |
| BZX84B8V2 | DM | 8.04 | 8.36 | < 15 | +4...+7 | 5 | 0.7 | 36 |
| BZX84B9V1 | DN | 8.50 | 9.60 | < 15 | +4...+7 | 6 | 0.5 | 31 |
| BZX84B10 | DP | 9.8 | 10.2 | < 20 | +5...+8 | 7 | 0.2 | 29 |
| BZX84B11 | DR | 10.8 | 11.2 | < 20 | +5...+8 | 8 | 0.1 | 27 |
| BZX84B12 ^{Q)} | DX | 11.8 | 12.2 | < 25 | +5...+8 | 8 | 0.1 | 25 |
| BZX84B13 | DY | 12.7 | 13.3 | < 30 | +6...+9 | 8 | 0.1 | 23 |
| BZX84B15 ^{Q)} | DZ | 14.7 | 15.3 | < 30 | +6...+9 | 10.5 | 0.05 | 20 |
| BZX84B16 | EA | 15.7 | 16.3 | < 40 | +6...+9 | 11.2 | 0.05 | 18 |
| BZX84B18 | EB | 17.6 | 18.4 | < 45 | +6...+9 | 12.6 | 0.05 | 16 |
| BZX84B20 ^{Q)} | EC | 19.6 | 20.4 | < 55 | +6...+9 | 14.0 | 0.05 | 15 |
| BZX84B22 | ED | 21.6 | 22.4 | < 55 | +7...+10 | 15.4 | 0.05 | 13 |
| BZX84B24 | EE | 23.5 | 24.5 | < 70 | +7...+10 | 16.8 | 0.05 | 12 |
| I _Z = | | 2 mA | 2 mA | 2 mA | | | | |
| BZX84B27 ^{Q)} | EF | 26.5 | 27.5 | < 80 | +7...+10 | 18.9 | 0.05 | 11 |
| BZX84B30 | EH | 29.4 | 30.6 | < 80 | +7...+10 | 21.0 | 0.05 | 10 |
| BZX84B33 | EJ | 32.3 | 33.7 | < 80 | +7...+10 | 23.1 | 0.05 | 9 |
| BZX84B36 | EK | 35.3 | 36.7 | < 90 | +7...+10 | 25.1 | 0.05 | 8 |
| BZX84B39 | EM | 38.2 | 39.8 | < 130 | +7...+10 | 27.3 | 0.05 | 8 |
| BZX84B43 | EN | 42.1 | 43.9 | < 150 | +7...+10 | 30.1 | 0.05 | 7 |
| BZX84B47 | EP | 46.1 | 47.9 | < 170 | +7...+10 | 32.9 | 0.05 | 6 |

1 Footnotes see last page – Fußnoten siehe letzte Seite



Disclaimer: See data book page 2 or [website](#)
Haftungsausschluss: Siehe Datenbuch Seite 2 oder [Internet](#)

1 Tested with pulses (20 ms) – Gemessen mit Impulsen (20 ms)
 2 Mounted on P.C. board with 3 mm² copper pads per terminal – Montage auf Leiterplatte mit 3 mm² Lötpad je Anschluss
 3 Per device (current at pin 3) – Pro Bauteil (Strom an Pin 3)
 4 ⁹⁾ Available in -Q. Ordering code e. g. BZX84B5V6-Q – ^{A)} Available in -AQ. Ordering code e. g. BZX84B5V6-AQ
⁹⁾ Erhältlich in -Q. Bestellnummer z. B. BZX84B5V6-Q – ^{A)} Erhältlich in -AQ. Bestellnummer z. B. BZX84B5V6-AQ