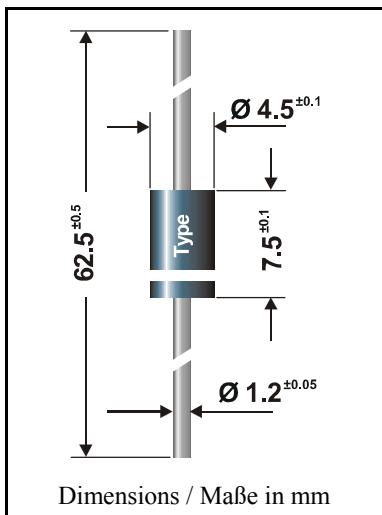


**Silicon-Power-Z-Diodes**  
(non-planar technology)
**Silizium-Leistungs-Z-Dioden**  
(flächendiffundierte Dioden)


|   |                               |
|---|-------------------------------|
| Maximum power dissipation<br>Maximale Verlustleistung                                 | 5 W                           |
| Nominal Z-voltage – Nominale Z-Spannung   | 8.7...200 V                   |
| Plastic case<br>Kunststoffgehäuse   | ~ DO-201                      |
| Weight approx. – Gewicht ca.  | 1 g                           |
| Plastic material has UL classification 94V-0<br>Gehäusematerial UL94V-0 klassifiziert |                               |
| Standard packaging taped in ammo pack<br>Standard Lieferform gegurtet in Ammo-Pack    | see page 16<br>siehe Seite 16 |

Standard Zener voltage tolerance is  $\pm 5\%$ . Other voltage tolerances and higher Zener voltages on request.

Die Toleranz der Zener-Spannung ist in der Standard-Ausführung  $\pm 5\%$ . Andere Toleranzen oder höhere Arbeitsspannungen auf Anfrage.

**Maximum ratings and Characteristics**
**Grenz- und Kennwerte**

|  |  |                        |                     |
|--|--|------------------------|---------------------|
| Power dissipation<br>Verlustleistung   | T <sub>A</sub> = 25 °C   | P <sub>tot</sub>       | 5.0 W <sup>1)</sup> |
| Non repetitive peak power dissipation, t < 10 ms<br>Einmalige Impuls-Verlustleistung, t < 10 ms    | T <sub>A</sub> = 25 °C   | P <sub>ZSM</sub>       | 80 W                |
| Operating junction temperature – Sperrsichttemperatur<br>Storage temperature – Lagerungstemperatur | T <sub>j</sub> – 50...+150 °C<br>T <sub>s</sub> – 50...+175 °C |                        |                     |
| Thermal resistance junction to ambient air<br>Wärmewiderstand Sperrsicht – umgebende Luft          | R <sub>thA</sub>   | < 25 K/W <sup>1)</sup> |                     |
| Thermal resistance junction to lead<br>Wärmewiderstand Sperrsicht – Anschlußdraht                  | R <sub>thL</sub>   | < 8 K/W                |                     |
| Zener voltages see table on next page<br>Zener-Spannungen siehe Tabelle auf der nächsten Seite     |  |                        |                     |

<sup>1)</sup> Valid, if leads are kept at ambient temperature at a distance of 10 mm from case  
Gültig, wenn die Anschlußdrähte in 10 mm Abstand vom Gehäuse auf Umgebungstemperatur gehalten werden

<sup>2)</sup> Tested with pulses – Gemessen mit Impulsen

**Maximum ratings****Grenzwerte**

| Type<br>Typ | Z-voltage <sup>2)</sup><br>Z-Spanng. <sup>2)</sup><br>$I_Z = I_{Z_{\text{test}}}$<br>$V_Z$ [V] | Test current<br>Meßstrom<br>$I_{Z_{\text{test}}} [\text{mA}]$ | Dynamic resistance<br>Inhär. diff. Widerst.<br>$I_Z = I_{Z_{\text{test}}}$<br>$r_{zj} [\Omega]$ | Reverse volt.<br>Sperrspanng.<br>$I_R = 0.5 \mu\text{A}$<br>$V_R$ [V] | Surge current<br>Stoßstrom<br>$t_p = 8.3 \text{ ms}$<br>$I_{ZS}$ [A] | Z-current <sup>1)</sup><br>Z-Strom <sup>1)</sup><br>$T_A = 50^\circ\text{C}$<br>$I_{Z_{\text{max}}} [\text{mA}]$ |     |
|-------------|--|---|---|---|--|--|-----|
| 1N 5345B    | 8.7  | 150   | 2   | 200   | > 6.6 (10μA)   | 9.5  | 546 |
| 1N 5346B    | 9.1  | 150   | 2   | 150   | > 6.9 (7.5μA)  | 9.2  | 522 |
| 1N 5347B    | 10   | 125   | 2   | 125   | > 7.6 (5μA)  | 8.6  | 475 |
| 1N 5348B    | 11   | 125   | 2.5   | 125   | > 8.4 (5μA)  | 8.0  | 432 |
| 1N 5349B    | 12   | 100   | 2.5   | 125   | > 9.1 (2μA)  | 7.5  | 396 |
| 1N 5350B    | 13   | 100   | 2.5   | 100   | > 9.9 (1μA)  | 7.0  | 365 |
| 1N 5351B    | 14   | 100   | 2.5   | 75  | > 10.6 (1μA)   | 6.7  | 339 |
| 1N 5352B    | 15   | 75  | 2.5   | 75  | > 11.5 (1μA)   | 6.3  | 317 |
| 1N 5353B    | 16   | 75  | 2.5   | 75  | > 12.2 (1μA)   | 6.0  | 297 |
| 1N 5354B    | 17   | 70  | 2.5   | 75  | > 12.9   | 5.8  | 279 |
| 1N 5355B    | 18   | 65  | 2.5   | 75  | > 13.7   | 5.5  | 264 |
| 1N 5356B    | 19   | 65  | 3   | 75  | > 14.4   | 5.3  | 250 |
| 1N 5357B    | 20   | 65  | 3   | 75  | > 15.2   | 5.1  | 238 |
| 1N 5358B    | 22   | 50  | 3.5   | 75  | > 16.7   | 4.7  | 216 |
| 1N 5359B    | 24   | 50  | 3.5   | 100   | > 18.2   | 4.4  | 198 |
| 1N 5360B    | 25   | 50  | 4   | 110   | > 19.0   | 4.3  | 190 |
| 1N 5361B    | 27   | 50  | 5   | 120   | > 20.6   | 4.1  | 176 |
| 1N 5362B    | 28   | 50  | 6   | 130   | > 21.2   | 3.9  | 170 |
| 1N 5363B    | 30   | 40  | 8   | 140   | > 22.8   | 3.7  | 158 |
| 1N 5364B    | 33   | 40  | 10  | 150   | > 25.1   | 3.5  | 144 |
| 1N 5365B    | 36   | 30  | 11  | 160   | > 27.4   | 3.3  | 132 |
| 1N 5366B    | 39   | 30  | 14  | 170   | > 29.7   | 3.1  | 122 |
| 1N 5367B    | 43   | 30  | 20  | 190   | > 32.7   | 2.8  | 110 |
| 1N 5368B    | 47   | 25  | 25  | 210   | > 35.8   | 2.7  | 101 |
| 1N 5369B    | 51   | 25  | 27  | 230   | > 38.8   | 2.5  | 93  |
| 1N 5370B    | 56   | 20  | 35  | 280   | > 42.6   | 2.3  | 85  |
| 1N 5371B    | 60   | 20  | 40  | 350   | > 45.5   | 2.2  | 79  |
| 1N 5372B    | 62   | 20  | 42  | 400   | > 47.1   | 2.1  | 77  |
| 1N 5373B    | 68   | 20  | 44  | 500   | > 51.7   | 2.0  | 70  |
| 1N 5374B    | 75   | 20  | 45  | 620   | > 56.0   | 1.9  | 63  |
| 1N 5375B    | 82   | 15  | 65  | 720   | > 62.2   | 1.8  | 58  |
| 1N 5376B    | 87   | 15  | 75  | 760   | > 66.0   | 1.7  | 55  |
| 1N 5377B    | 91   | 15  | 75  | 760   | > 69.2   | 1.6  | 52  |
| 1N 5378B    | 100  | 12  | 90  | 800   | > 76.0   | 1.5  | 48  |
| 1N 5379B    | 110  | 12  | 125   | 1000  | > 83.6   | 1.4  | 43  |
| 1N 5380B    | 120  | 10  | 170   | 1150  | > 91.2   | 1.3  | 40  |
| 1N 5381B    | 130  | 10  | 190   | 1250  | > 98.8   | 1.2  | 37  |
| 1N 5382B    | 140  | 8   | 230   | 1500  | > 106  | 1.2  | 34  |
| 1N 5383B    | 150  | 8   | 330   | 1500  | > 114  | 1.1  | 32  |
| 1N 5384B    | 160  | 8   | 350   | 1650  | > 122  | 1.1  | 30  |
| 1N 5385B    | 170  | 8   | 380   | 1750  | > 129  | 1.0  | 28  |
| 1N 5386B    | 180  | 5   | 430   | 1750  | > 137  | 1.0  | 26  |
| 1N 5387B    | 190  | 5   | 450   | 1850  | < 144  | 0.9  | 25  |
| 1N 5388B    | 200  | 5   | 480   | 1850  | > 152  | 0.9  | 24  |

<sup>1)</sup> Notes see previous page – Fußnoten siehe vorhergehende Seite