

Technical Data Data Sheet N0203, Rev. A **Green Products**

DL47-SERIES

ZENER DIODES

Zener Voltage: 3.3-100V Peak Pulse Power: 0.5W

0.020(0.5) 0.012(0.3) 0.020(0.5) 0.012(0.3) 0.012(0.3) 0.012(0.3) 0.012(0.3)

FEATURE

- Low zener impedance
- Low regulation factor
- · Glass passivated junction
- High temperature soldering guaranteed: 260°C/10S at terminals
- This is a Pb Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

MECHANICAL DATA

Case: DL-41 molded glass body

Terminals: Plated axial leads, solderable per MIL-STD 750,

method 2026

Polarity: Color band denotes cathode end

Mounting Position: Any

Weight: 0.012 ounce, 0.33 grams

Marking: Part Name, SSG and Date Code

ORDERING INFORMATION

| Device | Package | Shipping |
|-------------|--------------------|----------------|
| DL47-SERIES | DL-41 (Pb-Free) | 5000pcs / reel |

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specification.

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

| | SYMBOLS | VALUE | UNITS |
|--|---------|--------------|-------|
| Zener Current see Table Characteristics | | | |
| Power Dissipation at Tamb=25℃(Note 1) | Ptot | 500 | mW |
| Junction Temperature | Tj | 175 | °C |
| Storage Temperature Range | Тята | -65 to + 175 | °C |
| Thermal resistance junction ambient(Note 1 | R₅u | 0.3 | кw |
| Forward voltage at I _F =200mA | VF | 1.1 | ٧ |

Note 1: Valid provided that leads at a distance of 10mm from case are kept at ambient temperature

[•] Weiqi Street, Airport Development Zone, Jiangning District, Nanjing, China 211113 🗏 (86) 25-87123907 •

[•] FAX (86) 25-87123900 • World Wide Web Site - http://www.sangdest.com.cn • E-Mail Address - sales@ sangdest.com.cn •



Technical Data Data Sheet N0203, Rev. A

Green Products

ELECTRICAL CHARACTERISTICS (at Ta=25 ℃ unless otherwise noted)

| Nominal Zener Voltage Vz@lzt | Zener lest Voltage Current | Maximum Zener Impedance | | Maximum Reverse Leakage Current | | lzĸ | Max.Surge Current | Maximum Regulator Current | |
|---------------------------------------|-------------------------------|----------------------------|---------|------------------------------------|-----|-------|----------------------|---------------------------------|-----|
| | lz ı | Zzt@lzt | Zzr@lzĸ | lR | @Vr | | l ≈ @25°C | ZM | |
| | Volts | mA | Ohms | Ohms | μA | Volts | mA | mΑ | mA |
| DL4728A | 3.3 | 76 | 10 | 400 | 100 | 1.0 | 1.0 | 1380 | 276 |
| DL4729A | 3.6 | 69 | 10 | 400 | 100 | 1.0 | 1.0 | 1260 | 252 |
| DL4730A | 3.9 | 64 | 9.0 | 400 | 50 | 1.0 | 1.0 | 1170 | 234 |
| DL4731A | 4.3 | 58 | 9.0 | 400 | 10 | 1.0 | 1.0 | 1085 | 217 |
| DL4732A | 4.7 | 53 | 8.0 | 500 | 10 | 1.0 | 1.0 | 965 | 193 |
| DL4733A | 5.1 | 49 | 7.0 | 550 | 10 | 1.0 | 1.0 | 890 | 178 |
| DL4734A | 5.6 | 45 | 5.0 | 600 | 10 | 2.0 | 1.0 | 810 | 162 |
| DL4735A | 6.2 | 41 | 2.0 | 700 | 10 | 3.0 | 1.0 | 730 | 146 |
| DL4736A | 6.8 | 37 | 3.5 | 700 | 10 | 4.0 | 1.0 | 660 | 133 |
| DL4737A | 7.5 | 34 | 4.0 | 700 | 10 | 5.0 | 0.5 | 605 | 121 |
| DL4738A | 8.2 | 31 | 4.5 | 700 | 10 | 6.0 | 0.5 | 550 | 110 |
| DL4739A | 9.1 | 28 | 5.0 | 700 | 10 | 7.0 | 0.5 | 500 | 100 |
| DL4740A | 10 | 25 | 7.0 | 700 | 10 | 7.6 | 0.25 | 454 | 91 |
| DL4741A | 11 | 23 | 8.0 | 700 | 5.0 | 8.4 | 0.25 | 414 | 83 |
| DL4742A | 12 | 21 | 9.0 | 700 | 5.0 | 9.1 | 0.25 | 380 | 76 |
| DL4743A | 13 | 19 | 10 | 700 | 5.0 | 9.9 | 0.25 | 344 | 69 |
| DL4744A | 15 | 17 | 14 | 700 | 5.0 | 11.4 | 0.25 | 304 | 61 |
| DL4745A | 16 | 15.5 | 16 | 700 | 5.0 | 12.2 | 0.25 | 285 | 57 |
| DL4746A | 18 | 14 | 20 | 750 | 5.0 | 13.7 | 0.25 | 250 | 50 |
| DL4747A | 20 | 12.5 | 22 | 750 | 5.0 | 15.2 | 0.25 | 225 | 45 |
| DL4748A | 22 | 11.5 | 23 | 750 | 5.0 | 16.7 | 0.25 | 205 | 41 |
| DL4749A | 24 | 10.5 | 25 | 750 | 5.0 | 18.2 | 0.25 | 190 | 38 |
| DL4750A | 27 | 9.5 | 35 | 750 | 5.0 | 20.6 | 0.25 | 170 | 34 |
| DL4751A | 30 | 8.5 | 40 | 1000 | 5.0 | 22.8 | 0.25 | 150 | 30 |
| DL4752A | 33 | 7.5 | 45 | 1000 | 5.0 | 25.1 | 0.25 | 135 | 27 |
| DL4753A | 36 | 7.0 | 50 | 1000 | 5.0 | 27.4 | 0.25 | 125 | 25 |
| DL4754A | 39 | 6.5 | 60 | 1000 | 5.0 | 29.7 | 0.25 | 115 | 23 |
| DL4755A | 43 | 6.0 | 70 | 1500 | 5.0 | 32.7 | 0.25 | 110 | 22 |
| DL4756A | 47 | 5.5 | 80 | 1500 | 5.0 | 35.8 | 0.25 | 95 | 19 |
| DL4757A | 51 | 5.0 | 95 | 1500 | 5.0 | 38.8 | 0.25 | 90 | 18 |
| DL4758A | 56 | 4.5 | 110 | 2000 | 5.0 | 42.6 | 0.25 | 80 | 16 |
| DL4759A | 62 | 4.0 | 125 | 2000 | 5.0 | 47.1 | 0.25 | 70 | 14 |
| DL4760A | 68 | 3.7 | 150 | 2000 | 5.0 | 51.7 | 0.25 | 65 | 13 |
| DL4761A | 75 | 3.3 | 175 | 2000 | 5.0 | 56.0 | 0.25 | 60 | 12 |
| DL4762A | 82 | 3.0 | 200 | 3000 | 5.0 | 62.2 | 0.25 | 55 | 11 |
| DL4763A | 91 | 2.8 | 250 | 3000 | 5.0 | 69.2 | 0.25 | 50 | 10 |
| DL4764A | 100 | 2.5 | 350 | 3000 | 5.0 | 76.0 | 0.25 | 45 | 9 |

Note 1: Suffix "A" indicate ±5% tolerance

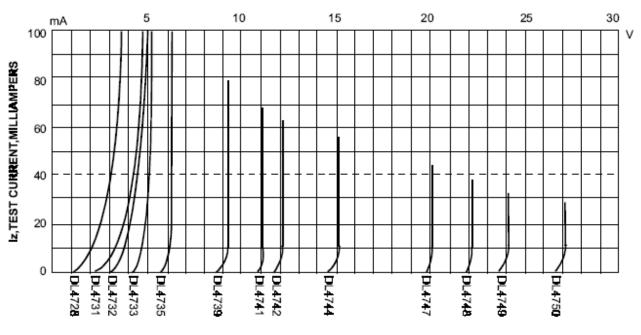
Weiqi Street, Airport Development Zone, Jiangning District, Nanjing, China 211113 ☐ (86) 25-87123907 •

[•] FAX (86) 25-87123900 • World Wide Web Site - http://www.sangdest.com.cn • E-Mail Address - sales@ sangdest.com.cn •

Technical Data Data Sheet N0203, Rev. A **Green Products**

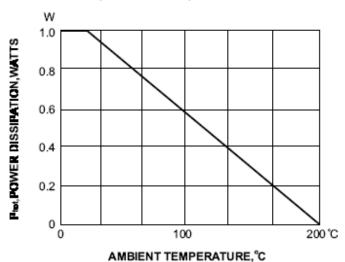
RATINGS AND CHARACTERISTIC CURVES DL47 SERIES

Breakdown characteristics



Vz,ZENER VOLTAGE, volts

Admissible power dissipation versus ambient temperature
Valid provided that leads are kept at ambient temperature at a distance of 10mm from case



[•] Weiqi Street, Airport Development Zone, Jiangning District, Nanjing, China 211113 🗏 (86) 25-87123907 •

[•] FAX (86) 25-87123900 • World Wide Web Site - http://www.sangdest.com.cn • E-Mail Address - sales@ sangdest.com.cn •



DL47 -SERIES

Technical Data Data Sheet N0203, Rev. A

Green Products

DISCLAIMER:

- 1- The information given herein, including the specifications and dimensions, is subject to change without prior notice to improve product characteristics. Before ordering, purchasers are advised to contact the SMC Sangdest Microelectronics (Nanjing) Co., Ltd sales department for the latest version of the datasheet(s).
- 2- In cases where extremely high reliability is required (such as use in nuclear power control, aerospace and aviation, traffic equipment, medical equipment, and safety equipment), safety should be ensured by using semiconductor devices that feature assured safety or by means of users' fail-safe precautions or other arrangement.
- 3- In no event shall SMC Sangdest Microelectronics (Nanjing) Co., Ltd be liable for any damages that may result from an accident or any other cause during operation of the user's units according to the datasheet(s). SMC Sangdest Microelectronics (Nanjing) Co., Ltd assumes no responsibility for any intellectual property claims or any other problems that may result from applications of information, products or circuits described in the datasheets.
- 4- In no event shall SMC Sangdest Microelectronics (Nanjing) Co., Ltd be liable for any failure in a semiconductor device or any secondary damage resulting from use at a value exceeding the absolute maximum rating.
- 5- No license is granted by the datasheet(s) under any patents or other rights of any third party or SMC Sangdest Microelectronics (Nanjing) Co., Ltd.
- 6- The datasheet(s) may not be reproduced or duplicated, in any form, in whole or part, without the expressed written permission of SMC Sangdest Microelectronics (Nanjing) Co., Ltd.
- 7- The products (technologies) described in the datasheet(s) are not to be provided to any party whose purpose in their application will hinder maintenance of international peace and safety nor are they to be applied to that purpose by their direct purchasers or any third party. When exporting these products (technologies), the necessary procedures are to be taken in accordance with related laws and regulations..