



3.0A SCHOTTKY BARRIER DIODE



Features

- Schottky Barrier Chip
- Guard Ring for Transient and ESD Protection
- Surge Overload Rating to 80A Peak
- Low Power Loss, High Efficiency
- Ideally Suited for Use in High Frequency SMPS, Inverters and As Free Wheeling Diodes

Mechanical Data

Case: DO-201AD, Molded Plastic

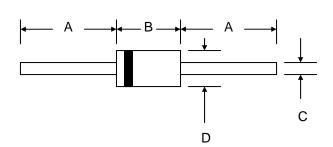
Terminals: Plated Leads Solderable per MIL-STD-202, Method 208

Polarity: Cathode Band

Weight: 1.2 grams (approx.)

Mounting Position: Any Marking: Type Number

Lead Free: For RoHS / Lead Free Version, Add "-LF" Suffix to Part Number, See Page 4



| DO-201AD | | | | |
|----------------------|------|------|--|--|
| Dim | Min | Max | | |
| Α | 25.4 | _ | | |
| В | 7.20 | 9.50 | | |
| C | 1.20 | 1.30 | | |
| D | 4.80 | 5.30 | | |
| All Dimensions in mm | | | | |

Maximum Ratings and Electrical Characteristics @T_A=25°C unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

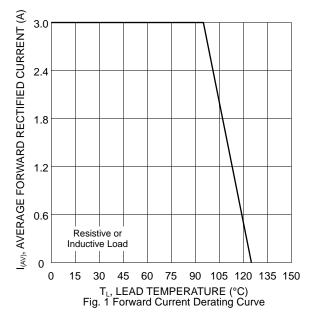
| Characteristic | Symbol | 1N5820 | 1N5821 | 1N5822 | Unit |
|---|--------------------|----------------|----------------|----------------|------|
| Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage | VRRM VRWM VR | 20 | 30 | 40 | ٧ |
| RMS Reverse Voltage | VR(RMS) | 14 | 21 | 28 | ٧ |
| Average Rectified Output Current (Note 1) @T _L = 95°C | lo | 3.0 | | Α | |
| Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method) | IFSM | | 80 | | А |
| Forward Voltage $@I_F = 3.0A$ $@I_F = 9.4A$ | VFM | 0.475 0.850 | 0.500 0.900 | 0.525 0.950 | V |
| Peak Reverse Current | lгм | | 2.0 20 | | mA |
| Thermal Resistance, Junction to Ambient (Note 2) Thermal Resistance, Junction to Lead (Note 2) | R JA R JL | 28 10 | | °C/W | |
| Operating Temperature Range | TJ | -65 to +125 | | °C | |
| Storage Temperature Range | Тѕтс | | -65 to +150 | | °C |

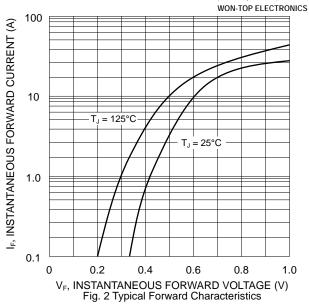
Note: 1. Leads maintained at ambient temperature at a distance of 9.5mm from the case.

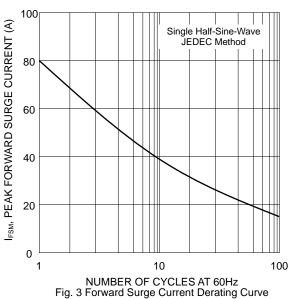
2. Vertical PCB mounting with 12.7mm lead length on 63.5 x 63.5mm copper pad.

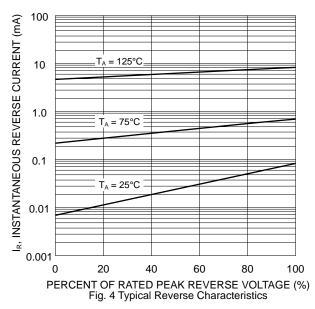
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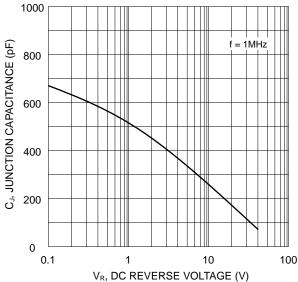


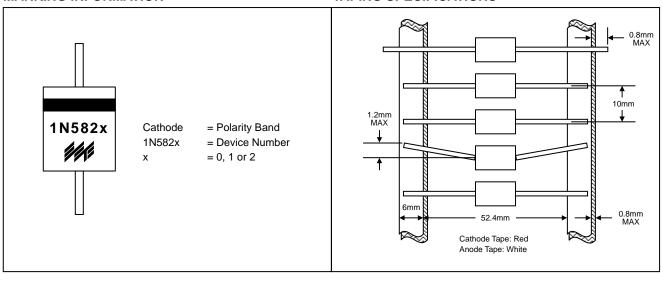
Fig. 5 Typical Junction Capacitance

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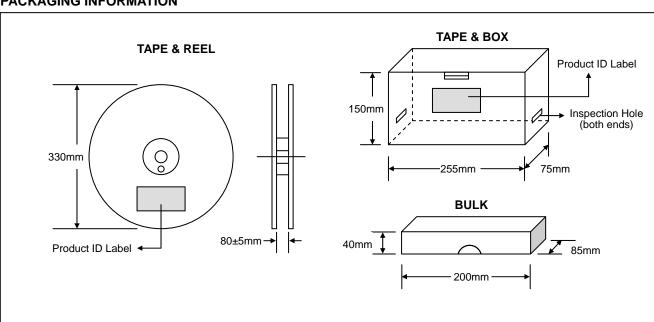


MARKING INFORMATION

TAPING SPECIFICATIONS



PACKAGING INFORMATION



| Packaging | Reel Diameter / Box Size (mm) | Quantity (PCS) | Carton Size (mm) | Quantity (PCS) | Approx. Gross Weight (KG) |
|-------------|----------------------------------|-------------------|---------------------|-------------------|---------------------------|
| TAPE & REEL | 330 | 1,200 | 370 x 370 x 420 | 6,000 | 10.0 |
| TAPE & BOX | 255 x 75 x 150 | 1,200 | 400 x 273 x 415 | 12,000 | 17.0 |
| BULK | 200 x 85 x 40 | 500 | 459 x 214 x 256 | 12,500 | 16.0 |

Note: 1. Paper reel, white or gray color. Core material: plastic or metal.
2. Components are packed in accordance with EIA standard RS-296-E.

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ORDERING INFORMATION

| Product No. | Package Type | Shipping Quantity |
|-------------|--------------|-------------------|
| 1N582x-T3 | DO-201AD | 1200/Tape & Reel |
| 1N582x-TB | DO-201AD | 1200/Tape & Box |
| 1N582x | DO-201AD | 500 Units/Box |

- Products listed in **bold** are WTE **Preferred** devices.
- 2.
- Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.

 To order RoHS / Lead Free version (with Lead Free finish), add "-LF" suffix to part number above. For example, 1N5820-TB-LF. 3.

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WARNING: DO NOT USE IN LIFE SUPPORT EQUIPMENT. WTE power semiconductor products are not authorized for use as critical components in life support devices or systems without the express written approval.

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