

Standard Diode



Features:

- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability

Specifications:

Mechanical Data:

| | |
|---------------------------------------|---|
| Cases | : Moulded plastic |
| Lead | : Axial leads, solderable per MIL-STD-202, Method 208 guaranteed |
| Polarity | : Colour band denotes cathode end |
| High temperature soldering guaranteed | : 260°C/10 seconds/0.375", (9.5mm) lead lengths at 5lbs., (2.3kg) tension |
| Weight | : 0.4g |

Maximum Ratings and Electrical Characteristics:

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

| Type Number | Symbol | 1N5391 | 1N5392 | 1N5393 | 1N5395 | 1N5397 | 1N5398 | 1N5399 | Units |
|--|------------|--------|--------|--------|--------|--------|--------|--------|--------------------------------|
| Maximum Recurrent Peak Reverse Voltage | V_{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 1,000 | V |
| Maximum RMS Voltage | V_{RMS} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | |
| Maximum DC Blocking Voltage | V_{DC} | 50 | 100 | 200 | 400 | 600 | 800 | 1,000 | |
| Maximum Average Forward Rectified Current 0.375 (9.5mm) Lead Length at $T_A = 75^\circ\text{C}$ | $I_{(AV)}$ | 1.5 | | | | | | | A |
| Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method) | I_{FSM} | 50 | | | | | | | |
| Maximum Instantaneous Forward Voltage at 1.5A | V_F | 1.1 | 10 | | | | | | V |
| Maximum DC Reverse Current at $T_A = 25^\circ\text{C}$ at Rated DC Blocking Voltage at $T_A = 100^\circ\text{C}$ | I_R | 5 | | | | | 50 | | μA μA |



Standard Diode

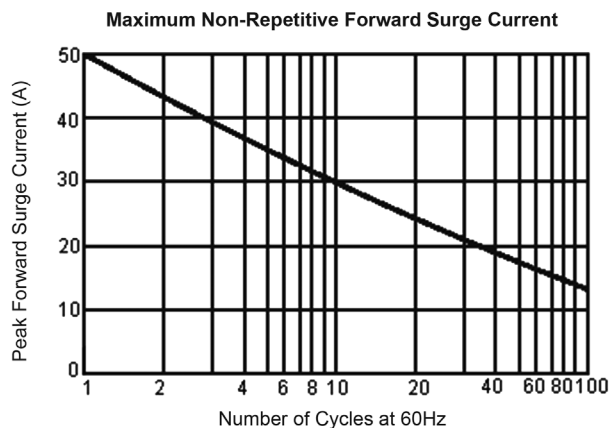
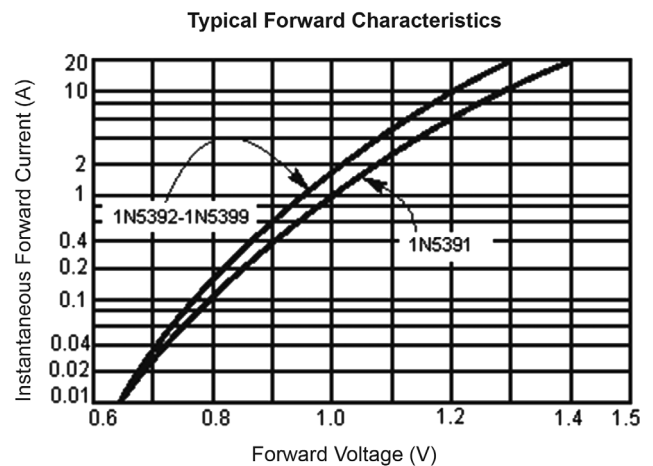
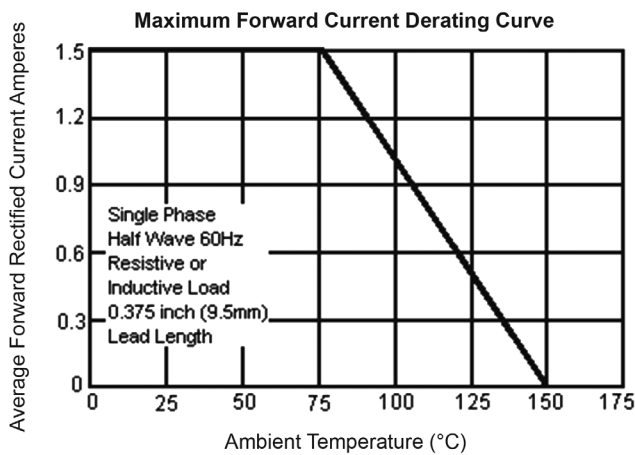


| Type Number | Symbol | 1N5391 | 1N5392 | 1N5393 | 1N5395 | 1N5397 | 1N5398 | 1N5399 | Units |
|--|-----------------|-------------|--------|--------|--------|--------|--------|--------|--------------------|
| Maximum Full Load Reverse Current, Full Cycle Average 0.375 inch (9.5mm) Lead Length at $T_A = 75^\circ\text{C}$ | HT_{IR} | 30 | | | | | | | μA |
| Typical Junction Capacitance (Note 1) | C_j | 50 | | | | | | | pF |
| Typical Thermal Resistance (Note 2) | $R_{\theta JA}$ | 60 | | | | | | | $^\circ\text{C/W}$ |
| Operating Temperature Range | T_J | -65 to +150 | | | | | | | $^\circ\text{C}$ |
| Storage Temperature Range | T_{STG} | | | | | | | | |

Note 1: Measured at 1MHz and Applied Reverse Voltage of 4V DC.

Note 2: 2. Mount on Cu-Pad Size 10mm × 10mm on PCB.

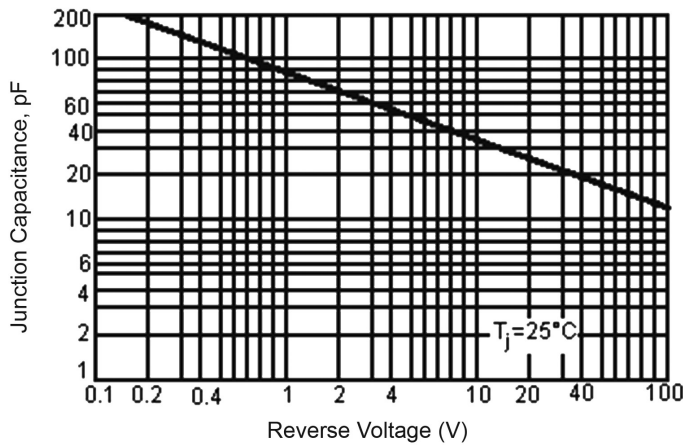
Ratings and Characteristic Curves (1N5391 thru 1N5399)



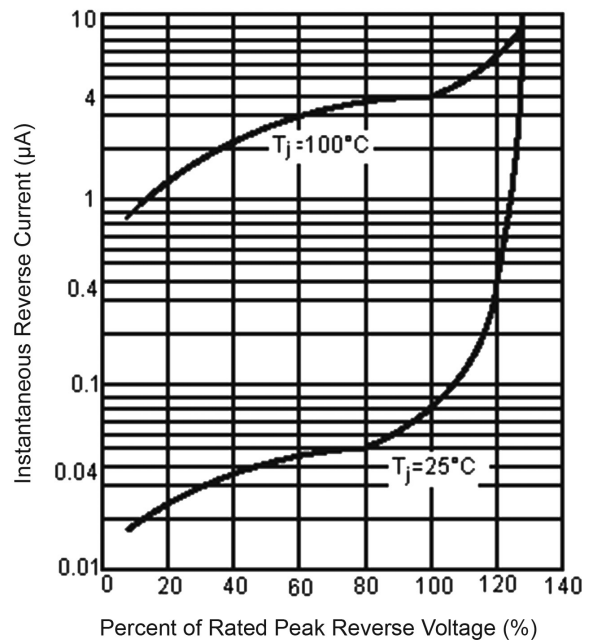
Standard Diode



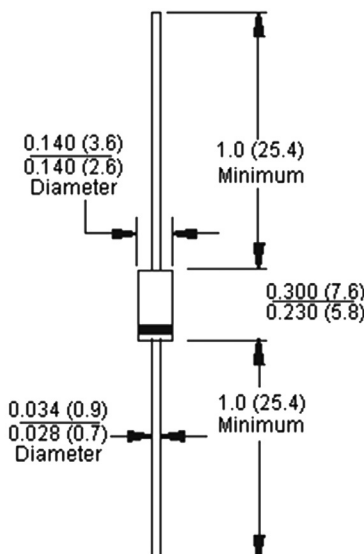
Typical Junction Capacitance



Typical Reverse Characteristics



DO-15



Dimensions : Inches (Millimetres)

Part Number Table

| Description | Part Number |
|-------------------------------|-------------|
| Diode, Standard, 1.5A, 50V | 1N5391 |
| Diode, Standard, 1.5A, 100V | 1N5392 |
| Diode, Standard, 1.5A, 200V | 1N5393 |
| Diode, Standard, 1.5A, 400V | 1N5395 |
| Diode, Standard, 1.5A, 600V | 1N5397 |
| Diode, Standard, 1.5A, 800V | 1N5398 |
| Diode, Standard, 1.5A, 1,000V | 1N5399 |

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