

Standard Diode



Features

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

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+	1N5399+	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	1,000	V
Maximum RMS Voltage	V_{RMS}	35	70	700	
Maximum DC Blocking Voltage	V_{DC}	50	100	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
Max. 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.

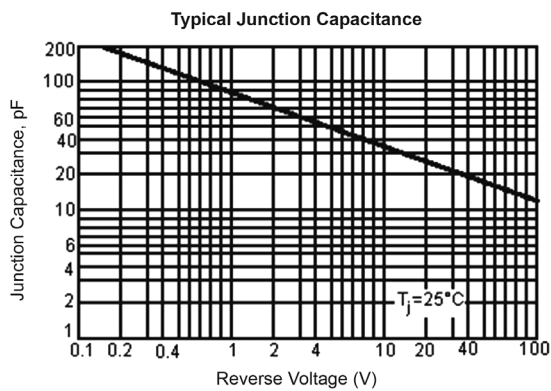
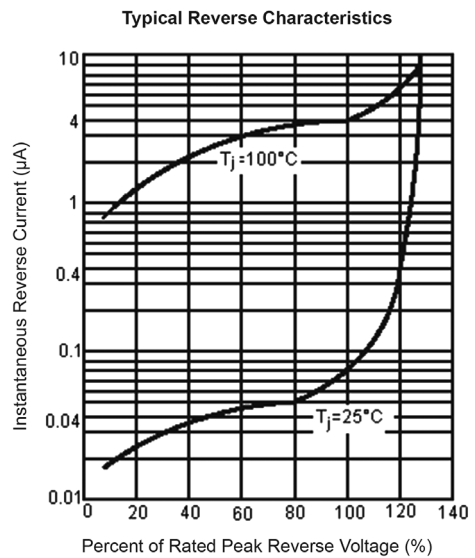
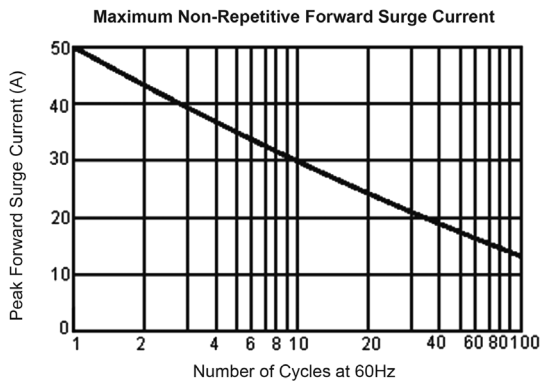
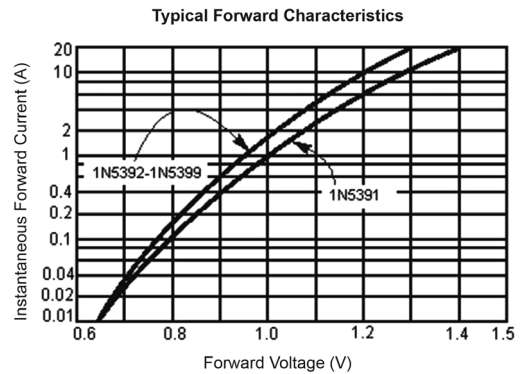
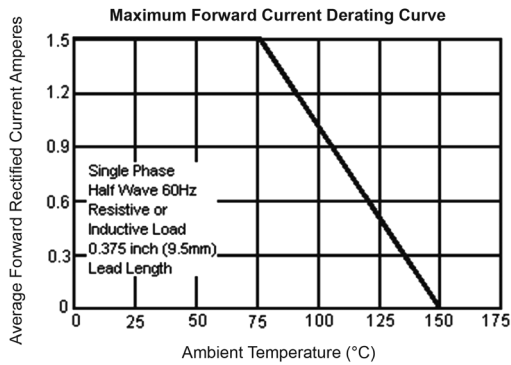
Note 2: Mount on Cu-Pad Size 10mm × 10mm on PCB.



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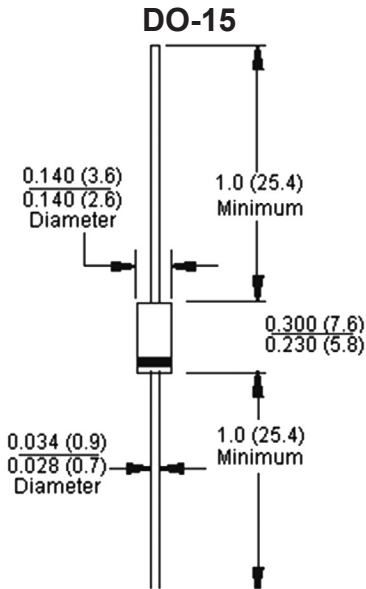
Ratings and Characteristic Curves



Standard Diode



Dimensions:



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, 1,000V	1N5399+

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