

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°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°C at Rated DC Blocking Voltage at T _A = 100°C	I _R	5 50							µA µA

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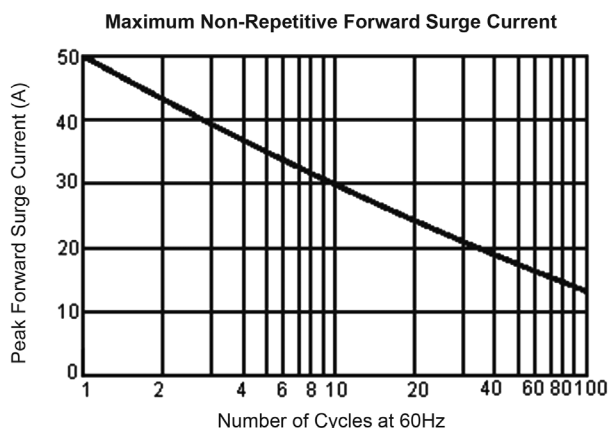
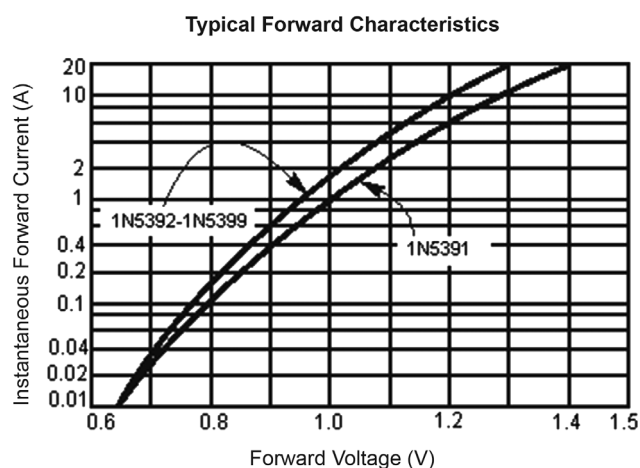
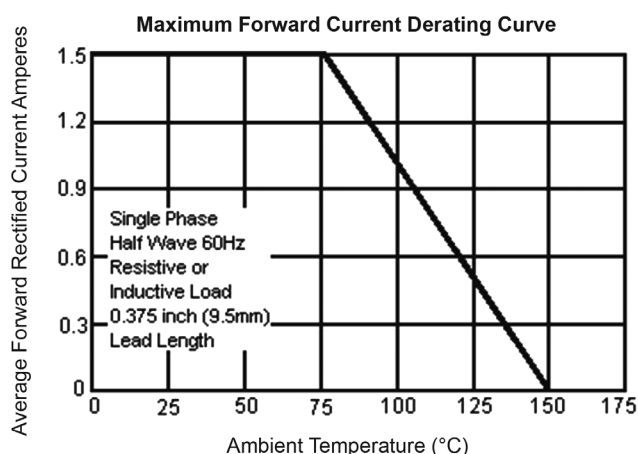


Type Number	Symbol	1N5391	1N5392	1N5393	1N5395	1N5397	1N5398	1N5399	Units
Maximum Full Load Reverse Current, Full Cycle Average 0.375 inch (9.5mm) Lead Length at $T_A = 75^\circ\text{C}$	HT_{IR}	30							μA
Typical Junction Capacitance (Note 1)	C_j	50							pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	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.

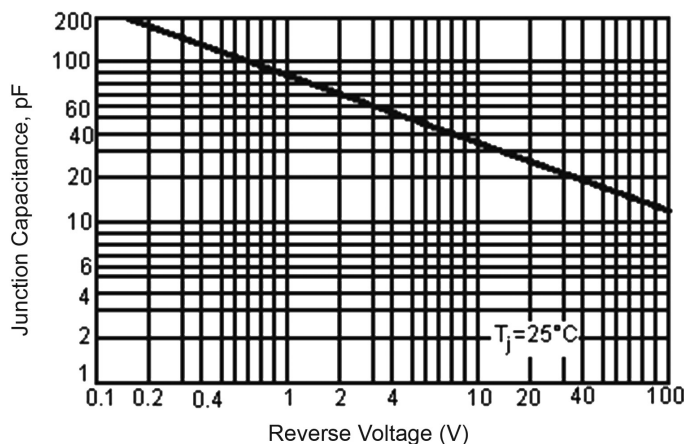
Ratings and Characteristic Curves (1N5391 thru 1N5399)



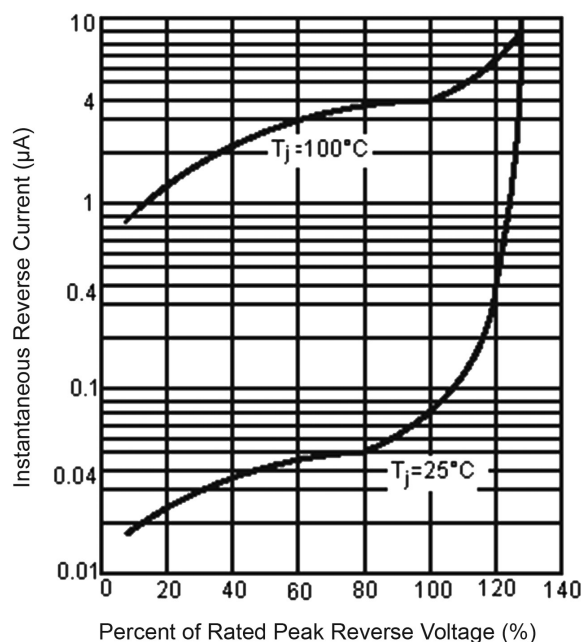
Standard Diode



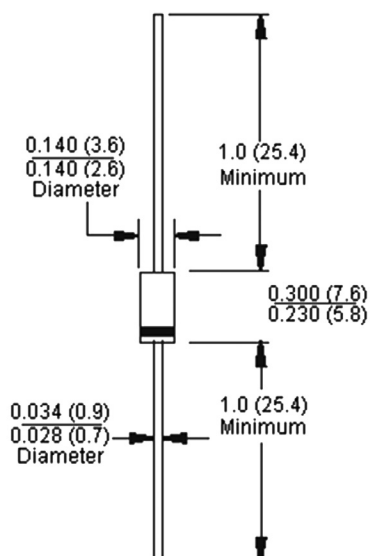
Typical Junction Capacitance



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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