

# 1N5391 - 1N5399

**PRV : 50 - 1000 Volts**  
**Io : 1.5 Amperes**

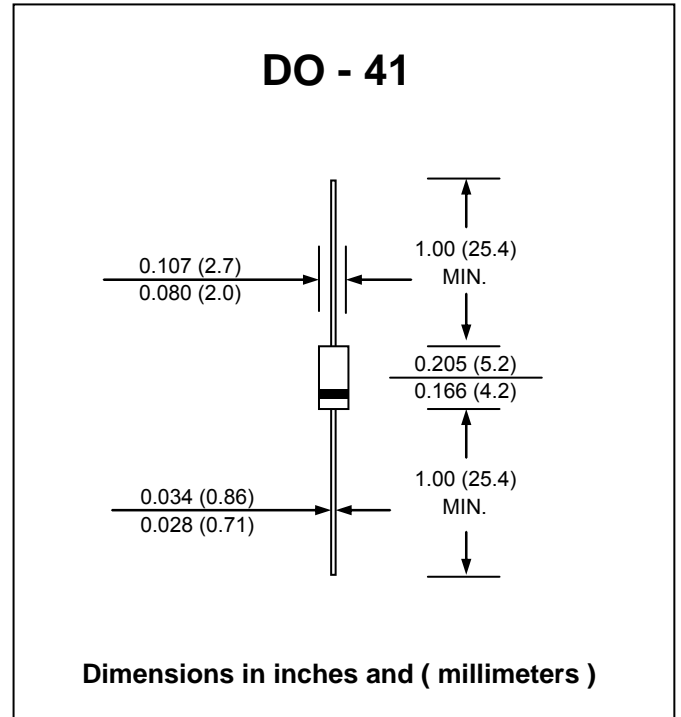
### FEATURES :

- \* High current capability
- \* High surge current capability
- \* High reliability
- \* Low reverse current
- \* Low forward voltage drop
- \* **Pb / RoHS Free**

### MECHANICAL DATA :

- \* Case : DO-41 Molded plastic
- \* Epoxy : UL94V-O rate flame retardant
- \* Lead : Axial lead solderable per MIL-STD-202, Method 208 guaranteed
- \* Polarity : Color band denotes cathode end
- \* Mounting position : Any
- \* Weight : 0.34 gram

## SILICON RECTIFIER DIODES



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified.

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

For capacitive load, derate current by 20%.

RATING	SYMBOL	1N	1N	1N	1N	1N	1N	1N	1N	1N	UNIT
		5391	5392	5393	5394	5395	5396	5397	5398	5399	
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	50	100	200	300	400	500	600	800	1000	V
Maximum RMS Voltage	$V_{RMS}$	35	70	140	210	280	350	420	560	700	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	300	400	500	600	800	1000	V
Maximum Average Forward Current 0.375"(9.5mm) Lead Length $T_a = 70\text{ }^\circ\text{C}$	$I_F$	1.5									A
Peak Forward Surge Current 8.3ms Single half sine wave Superimposed on rated load (JEDEC Method)	$I_{FSM}$	50									A
Maximum Forward Voltage at $I_F = 1.5\text{ Amps.}$	$V_F$	1.1									V
Maximum DC Reverse Current at rated DC Blocking Voltage $T_a = 25\text{ }^\circ\text{C}$ $T_a = 100\text{ }^\circ\text{C}$	$I_R$	5.0									$\mu\text{A}$
	$I_{R(H)}$	50									$\mu\text{A}$
Typical Junction Capacitance (Note1)	$C_J$	15									pF
Typical Thermal Resistance (Note2)	$R_{\theta JA}$	26									$^\circ\text{C/W}$
Junction Temperature Range	$T_J$	- 65 to + 175									$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	- 65 to + 175									$^\circ\text{C}$

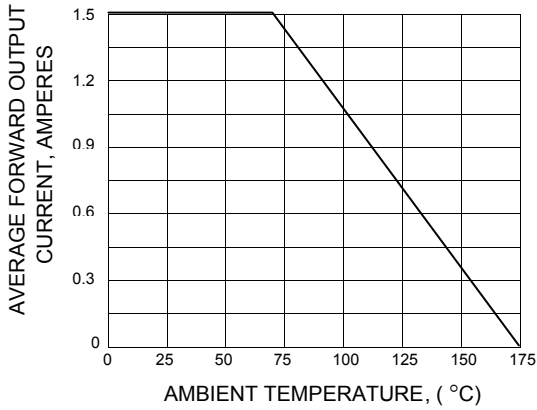
#### Notes :

(1) Measured at 1.0 MHz and applied reverse voltage of 4.0 Vdc

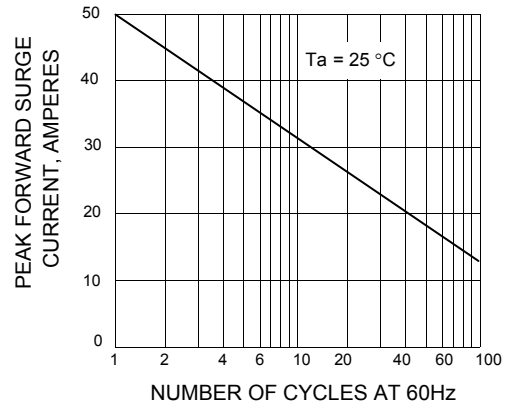
(2) Thermal resistance from Junction to Ambient at 0.375" (9.5mm) Lead Lengths, P.C. Board Mounted.

**RATING AND CHARACTERISTIC CURVES ( 1N5391 - 1N5399 )**

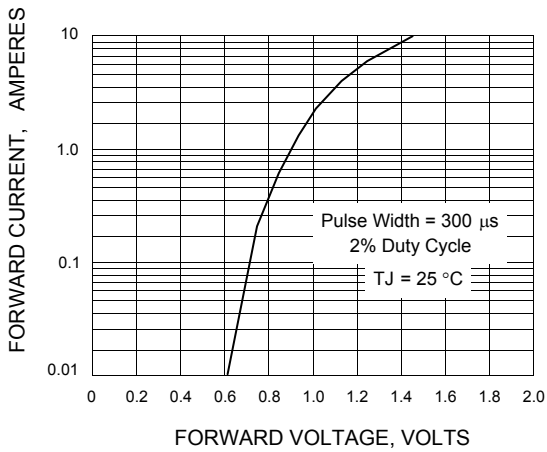
**FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



**FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



**FIG.3 - TYPICAL FORWARD CHARACTERISTICS**



**FIG.4 - TYPICAL REVERSE CHARACTERISTICS**

