

1N5391 - 1N5399

PRV : 50 - 1000 Volts

Io : 1.5 Amperes

FEATURES :

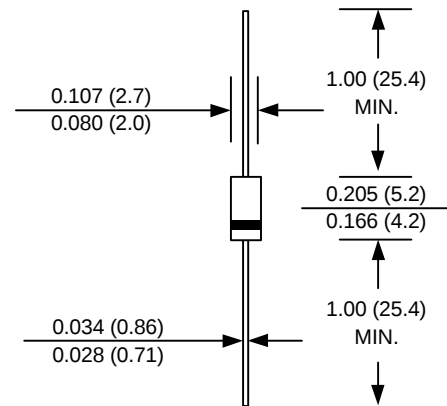
- * High current capability
- * High surge current capability
- * High reliability
- * Low reverse current
- * Low forward voltage drop

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

DO - 41



Dimensions in inches and (millimeters)

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 5391	1N 5392	1N 5393	1N 5394	1N 5395	1N 5396	1N 5397	1N 5398	1N 5399	UNIT
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 $T_a = 70^\circ\text{C}$	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 $I_F = 1.5$ Amps.	V_F	1.4									V
Maximum DC Reverse Current $T_a = 25^\circ\text{C}$	I_R	5.0									μA
at rated DC Blocking Voltage $T_a = 100^\circ\text{C}$	$I_{R(H)}$	50									μA
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 4.0V_{DC}

(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

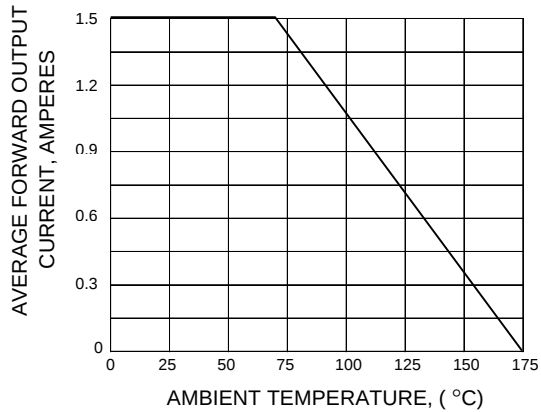


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

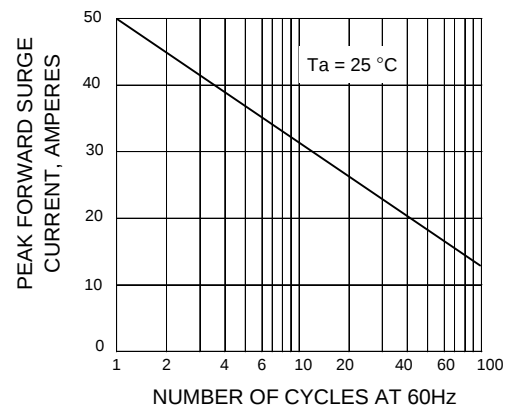


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

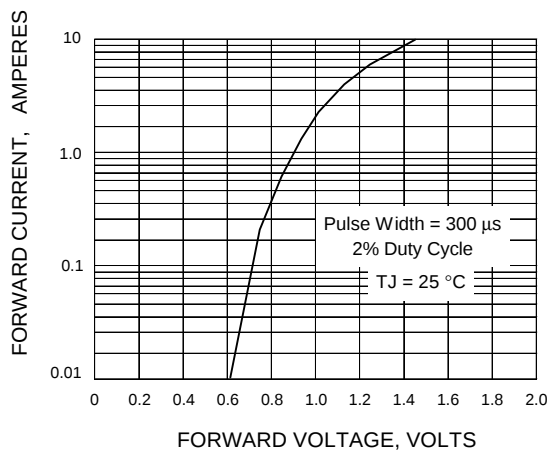


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

