

1N5391 - 1N5399

PRV : 50 - 1000 Volts
Io : 1.5 Amperes

FEATURES :

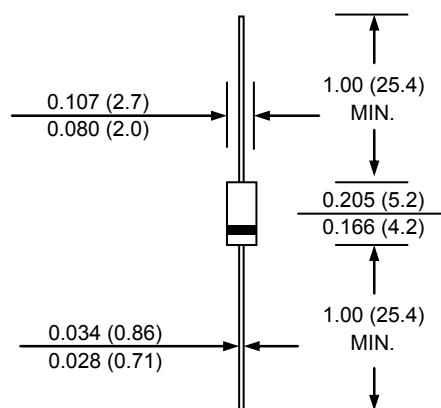
- * High current capability
- * High surge current capability
- * High reliability
- * Low reverse current
- * Low forward voltage drop
- * **Pb / RoHS Free**

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

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	1N5391	1N5392	1N5393	1N5394	1N5395	1N5396	1N5397	1N5398	1N5399	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	1.1									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 4.0 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

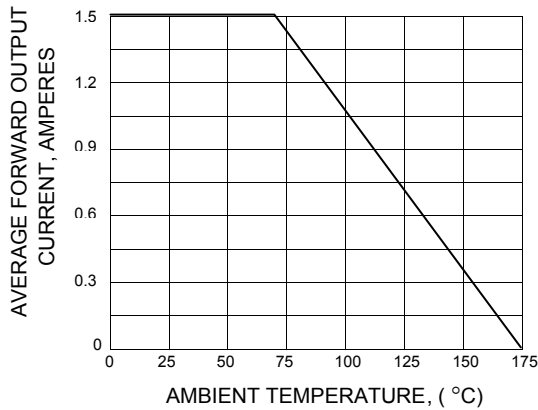


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

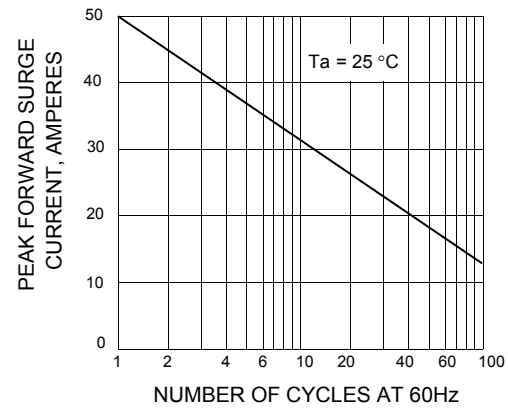


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

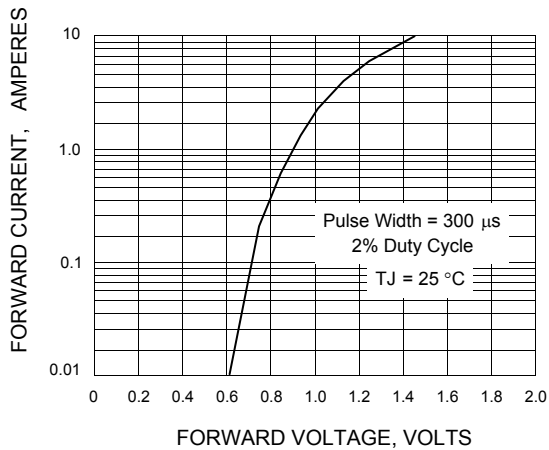


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

