

1N5391 THRU 1N5399

GENERAL PURPOSE PLASTIC SILICON RECTIFIER

Reverse Voltage – 50 to 1000 V

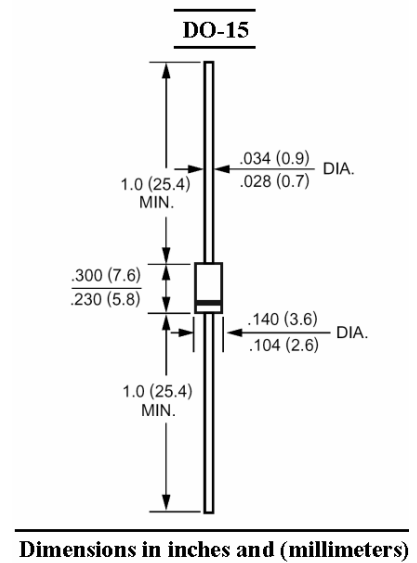
Forward Current – 1.5 A

Features

- High current capability
- Low leakage current
- Low cost

Mechanical Data

- Case: Molded plastic, DO-15
- Terminals: Plated axial leads, solderable per MIL-STD-202, method 208 guaranteed
- Polarity: Color band denotes cathode end
- Mounting position: Any



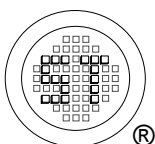
Absolute Maximum Ratings and Characteristics

Ratings 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%.

Parameter	Symbols	1N 5391	1N 5392	1N 5393	1N 5394	1N 5395	1N 5396	1N 5397	1N 5398	1N 5399	Units
Maximum Recurrent 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 Rectified Current 0.375" (9.5 mm) Lead Length at $T_A = 75^\circ\text{C}$	$I_{(AV)}$	1.5									A
Peak Forward Surge Current, 8.3 ms Single Half-sine-wave Superimposed on rated load (JEDEC method)	I_{FSM}	50									A
Maximum Forward Voltage at 1.5 A DC	V_F	1.4									V
Maximum Reverse Current $T_A = 25^\circ\text{C}$ at Rated DC Blocking Voltage $T_A = 100^\circ\text{C}$	I_R	5 500									μA
Typical Junction Capacitance ¹⁾	C_J	20									pF
Typical Thermal Resistance ²⁾	$R_{\theta JA}$	50									$^\circ\text{C/W}$
Operating Junction Temperature Range	T_J	-55 to +150									$^\circ\text{C}$
Storage Temperature Range	T_{stg}	-55 to +150									$^\circ\text{C}$

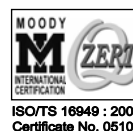
¹⁾ Measured at 1 MHz and applied reverse voltage of 4 VDC.

²⁾ Thermal resistance junction to ambient 0.375" (9.5 mm) lead length P.C.B mounted.



SEMTECH ELECTRONICS LTD.

(Subsidiary of Sino-Tech International Holdings Limited, a company
listed on the Hong Kong Stock Exchange, Stock Code: 724)



ISO/TS 16949 : 2002
Certificate No. 05103



ISO 14001:2004
Certificate No. 7116



ISO 9001:2000
Certificate No. 0506098

Dated : 25/04/2006 H

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FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

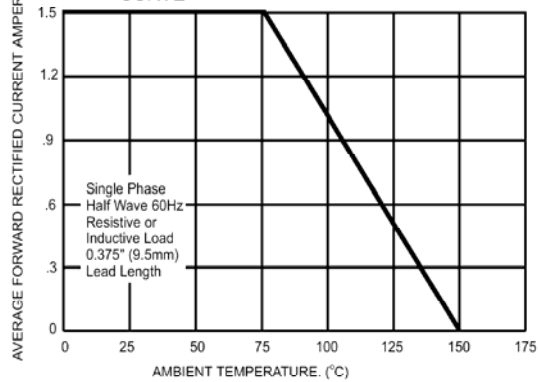


FIG.2- TYPICAL FORWARD CHARACTERISTICS

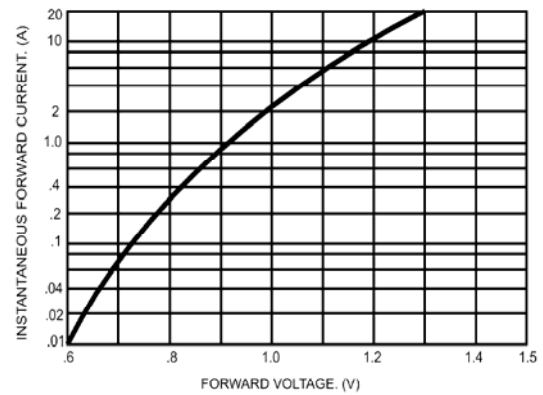


FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

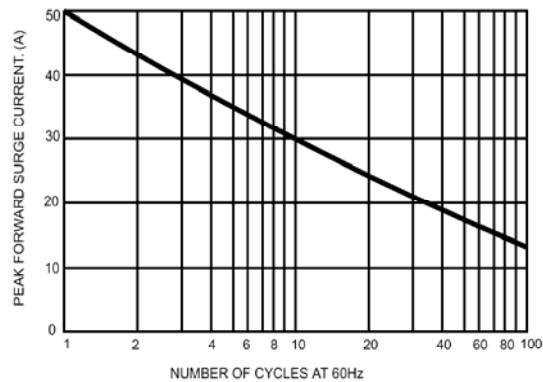


FIG.4- TYPICAL REVERSE CHARACTERISTICS

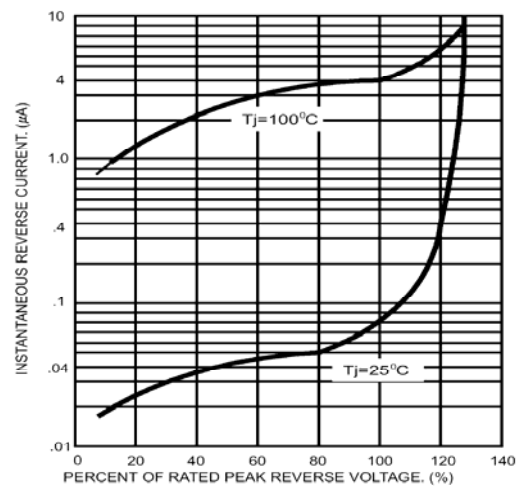
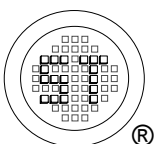
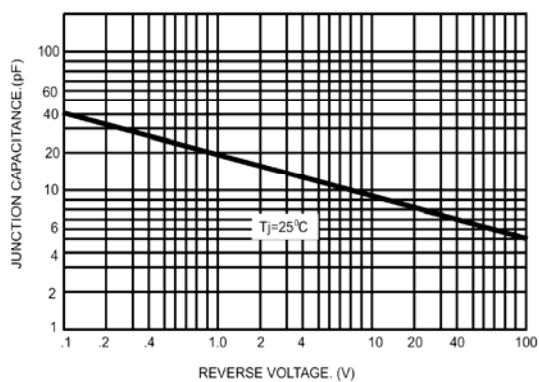
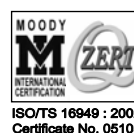


FIG.5- TYPICAL JUNCTION CAPACITANCE



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