1N5391S THRU 1N5399S

GENERAL PURPOSE PLASTIC SILICON RECTIFIERS Reverse Voltage – 50 to 1000 Volts Forward Current – 1.5 Ampere

Features

- Low cost
- High current capability
- Plastic package has Underwriters Laboratory Flammabiliy Classification 94V-O ctilizing Flame Retardant Epoxy Molding Compound
- Low leakage

MECHANICAL DATA:

- Case: Molded plastic, DO-41
- Terminals: Plated axial leads, solderable per MIL-STD-202, method 208 guaranteed
- Polarity: Color band denotes cathode end

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%.

	Symbols	1N 5391S	1N 5392S	1N 5393S	1N 5394S	1N 5395S	1N 5396S	1N 5397S	1N 5398S	1N 5399S	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 =60 $^\circ\!{\rm C}$	I _(AV)	1.5									A
Peak Forward Surge Current 8.3ms single half sine-wave	I _{FSM}	50								A	
Maximum Forward Voltage at 1.5A DC and $25^\circ\!\!\mathbb{C}$	VF	1.4									V
Maximum Reverse Current, at $T_A{=}25^\circ\!\!\mathbb{C}$ At Rated DC Blocking Voltage $T_A{=}100^\circ\!\!\mathbb{C}$	I _R	5 500									μΑ
Typical Junction Capacitance (Note 1)	CJ	25									pF
Typical Thermal Resistance (Note 2)	R⊖JA	26									°C/W
Operating and Storage Temperature Range	T _J , T _{stg}	-55 to +150									°C

Notes:

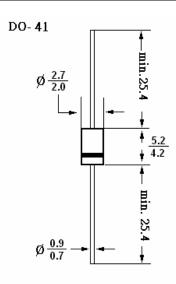
- 1. Measured at 1 MHz and applied reverse voltage of 4 $V_{\text{DC}}.$
- 2. Thermal resistance junction to ambient and form junction to lead at 0.375"(9.5mm) lead length P.C.B. mounted.



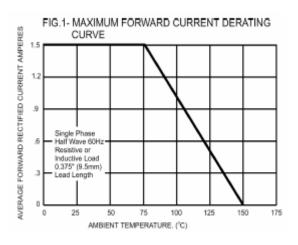
SEMTECH ELECTRONICS LTD. (Subsidiary of Sino-Tech International Holdings Limited, a company listed on the Hong Kong Stock Exchange, Stock Code: 724)



Dimensions in mm



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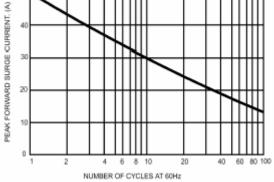
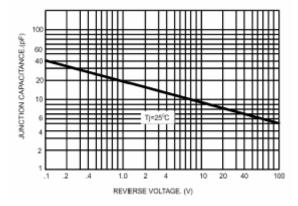


FIG.5- TYPICAL JUNCTION CAPACITANCE



R



MOODY MOODY

FIG.2- TYPICAL FORWARD CHARACTERISTICS

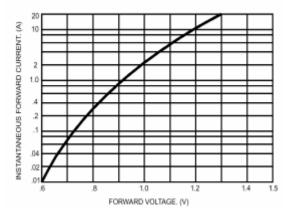
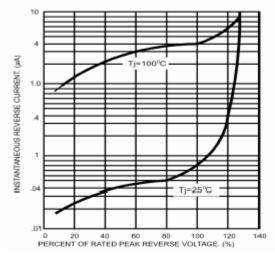


FIG.4- TYPICAL REVERSE CHARACTERISTICS





MOOD