



Solid State Devices, Inc.

14701 Firestone Blvd * La Mirada, Ca 90638
Phone: (562) 404-7855 * Fax: (562) 404-1773
ssdi@ssdi-power.com * www.ssdi-power.com

1N4148SM

DESIGNER'S DATA SHEET

Part Number / Ordering Information ^{1/}

1N4148SM__

- L **Screening**^{2/} = None
 - TX = TX Level
 - TXV = TXV Level
 - S = S Level
- L **Package**
 - SM = Surface Mount Round Tab

200 mAMP

75 Volts

5 nsec

HYPER FAST RECTIFIER

Features:

- Hyper Fast Recovery: 5 nsec Max.
- Subminiature Surface Mount Package
- Round Tab Mounting (Square Tabs Available)
- Hermetically Sealed
- Planar Passivated Chip
- For High Efficiency Applications
- TX, TXV, and S-Level Screening Available^{2/}

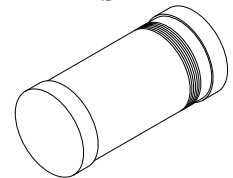
Maximum Ratings	Symbol	Value	Units
Peak Repetitive Reverse and DC Blocking Voltage	V_{RRM} V_{RWM} V_R	75	Volts
Average Rectified Forward Current (Resistive Load, 60 Hz, Sine Wave, $T_A = 25^\circ\text{C}$)	I_o	200	mAmps
Surge Current (8.3 ms Pulse, Half Sine Wave Superimposed on I_o , Allow Junction to Reach Equilibrium between Pulses, $T_A = 25^\circ\text{C}$)	I_{FSM}	2	Amps
Operating & Storage Temperature	Top & Tstg	-65 to +200	$^\circ\text{C}$
Maximum Thermal Resistance Junction to End Tab	$R_{\theta JE}$	0.35	$^\circ\text{C}/\text{mW}$

Notes:

^{1/} For Ordering Information, Price, Operating Curves, and Availability – Contact Factory.

^{2/} Screening Based on MIL-PRF-19500. Screening Flows Available on Request.

SM



NOTE: All specifications are subject to change without notification. SCD's for these devices should be reviewed by SSDI prior to release.

DATA SHEET #: RC0061B

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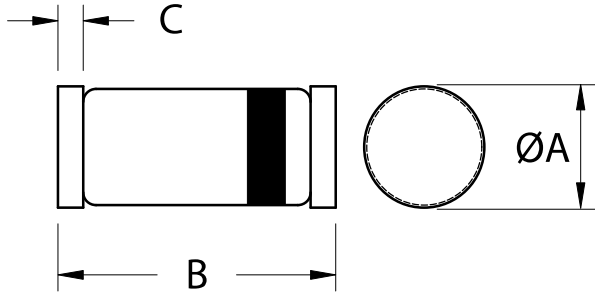
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Electrical Characteristics		Symbol	Max	Units
Instantaneous Forward Voltage Drop ($T_A = 25^\circ\text{C}$, 300-500 μs pulse)	$I_F = 10\text{mA}$	V_{F1}	0.8	V_{DC}
	$I_F = 100\text{mA}$	V_{F2}	1.2	
Instantaneous Forward Voltage Drop (300-500 μs pulse)	$I_F = 10\text{mA}$, $T_A = 150^\circ\text{C}$	V_{F3}	0.8	V_{DC}
	$I_F = 100\text{mA}$, $T_A = -55^\circ\text{C}$	V_{F4}	1.3	
Reverse Leakage Current ($T_A = 25^\circ\text{C}$, 300 μs pulse minimum)	$V_R = 20\text{V}$	I_{R1}	25	nA
	$V_R = 75\text{V}$	I_{R2}	500	
Reverse Leakage Current ($T_A = 150^\circ\text{C}$, 300 μs pulse minimum)	$V_R = 20\text{V}$	I_{R3}	35	μA
	$V_R = 75\text{V}$	I_{R4}	75	
Junction Capacitance ($V_R = 1.5 V_{DC}$, $T_A = 25^\circ\text{C}$, $f = 1\text{MHz}$)		C_J	2.8	pF
Reverse Recovery Time ($I_F = 10 \text{mA}$, $I_R = 10\text{mA}$, $I_{RR} = 1\text{mA}$, $T_A = 25^\circ\text{C}$)		t_{rr}	5	nsec

Case Outline: Surface Mount Round Tab (SM)



DIMENSIONS		
DIM	MIN	MAX
A	.056"	.064"
B	.130"	.146"
C	.010"	.022"

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