



PRELIMINARY

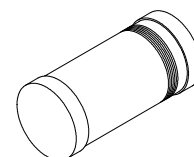
SOLID STATE DEVICES, INC.

14830 Valley View Blvd * La Mirada, Ca 90638

Phone: (562) 404-7855 * Fax: (562) 404-1773

Designer's Data Sheet**FEATURES:**

- **Hyper Fast Recovery: 5 nsec maximum**
 - **Subminiature Surface Mount Package**
 - **Round Tab Mounting (Square Tabs Available)**
 - **Hermetically Sealed**
 - **Planar Passivated Chip**
 - **For High Efficiency Applications**
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- **TX, TXV, and Space Level Screening Available**

1N4148SM**200 mAMP
75 VOLTS
5 nsec
HYPER FAST
RECTIFIER****SURFACE MOUNT
ROUND TAB
"SM"**

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, 60Hz, Sine Wave, $T_A = 25^\circ\text{C}$)	I_o	200	mAmps
Peak 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 and Storage Temperature	T_{OP} & T_{STG}	-65 TO +200	$^\circ\text{C}$
Maximum Thermal Resistance Junction to End Tab	$R_{\theta JE}$	0.35	$^\circ\text{C}/\text{mW}$

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

DATA SHEET #: RC0061A

1N4148SM

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Electrical Characteristics		SYMBOL	MAXIMUM	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 minimum Pulse)	$V_R = 20\text{V}$	I_{R1}	25	nA
	$V_R = 75\text{V}$	I_{R2}	500	
Reverse Leakage Current ($T_A = 150^\circ\text{C}$, 300 μs minimum Pulse)	$V_R = 20\text{V}$	I_{R3}	35	μA
	$V_R = 75\text{V}$	I_{R4}	75	
Junction Capacitance ($V_R = 1.5V_{DC}$, $T_A = 25^\circ\text{C}$, $f = 1\text{ MHz}$)		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:
ROUND TAB "SM"****DIMENSIONS**

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

