PRELIMINARY

SOLID STATE DEVICES, INC.
14830 Valley View Blvd * La Mirada, Ca 90638
Phone: (562) 404-7855 * Fax: (562) 404-1773

1N4148SM

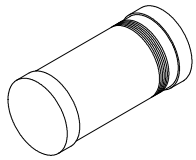
Designer's Data Sheet

200 mAMP 75 VOLTS 5 nsec HYPER FAST RECTIFIER

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**
- **TX, TXV, and Space Level Screening Available**

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 °C	Io	200	mAmps
Peak Surge Current (8.3 ms Pulse, Half Sine Wave Superimposed on Io, allow junction to reach equilibrium between pulses, T_A = 25°C)	I_{FSM}	2	Amps
Operating and Storage Temperature	T_{OP} & T_{STG}	-65 TO +200	°C
Maximum Thermal Resistance Junction to End Tab	$R_{\theta JE}$	0.35	°C/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

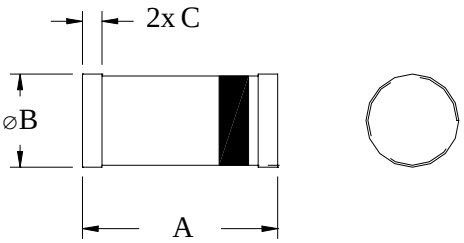
1N4148SM

PRELIMINARY

SOLID STATE DEVICES, INC.
14830 Valley View Blvd * La Mirada, Ca 90638
Phone: (562) 404-7855 * Fax: (562) 404-1773

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

CASE OUTLINE:
ROUND TAB "SM"



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