

SOLID STATE DEVICES, INC.

14005 Stage Road \* Santa Fe Springs, Ca 90670 Phone: (562) 404-4474 \* Fax: (562) 404-1773

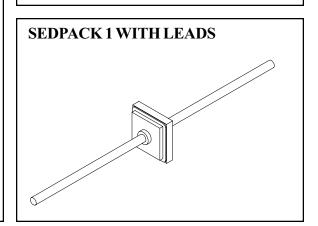
# **Designer's Data Sheet**

### **FEATURES:**

- Extremely Low Forward Voltage Drop 450mV max at 5 Amps
- PIV of 40 Volts
- High Reliability Construction
- Hermetically Sealed
- Surge Capability of 300 Amps
- T<sub>J</sub> and Tstg 175°C
- TX, TXV and Space Level Screening Available

**SSR1640A** 

15 AMP 40 VOLTS SCHOTTKY RECTIFIER



Maximum Ratings	SYMBOL	VALUE	UNITS
Peak Repetitive Reverse and DC Blocking Voltage	$V_{ m RM(rep)} \ V_{ m R}$	40	Volts
RMS Reverse Voltage	Vr	28	Volts
Half Wave Rectified Forward Current Averaged over Full Cycle (Resistive Load, 60Hz, Sine Wave, T <sub>C</sub> = 25 °C	Io	15	Amps
<b>Peak Surge Current</b> (8.3 ms Pulse, Half Sine Wave Superimposed on Io, allow junction to reach equilibrium between pulses, T <sub>C</sub> = 55°C)	I <sub>FSM(surge)</sub>	300	Amps
Operating Junction Temperature	T <sub>J</sub> (PK)	-55 TO +175	°C
Maximum Thermal Resistance Junction to Case	$R_{ heta JC}$	3.0	°C/W

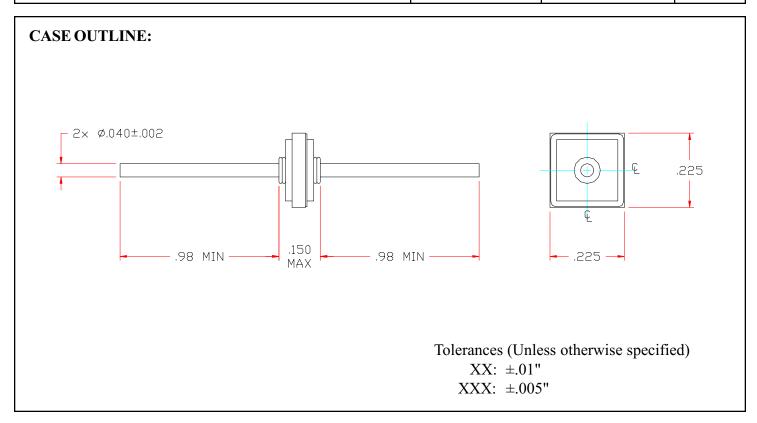
#### **PRELIMINARY**

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Electrical Characteristics	SYMBOL	VALUE	UNITS
Instantaneous Forward Voltage Drop $ \begin{array}{ll} (I_F=&5A_{DC},T_A=25~^{\circ}C,300\mu sPulse)\\ (I_F=&10A_{DC},T_A=25~^{\circ}C,300\mu sPulse)\\ (I_F=&15A_{DC},T_A=25~^{\circ}C,300\mu sPulse) \end{array} $	$\begin{array}{c} V_{F1} \\ V_{F2} \\ V_{F3} \end{array}$	0.45 0.55 0.62	V <sub>DC</sub>
Instantaneous Forward Voltage Drop (I <sub>F</sub> = 15A <sub>DC</sub> , T <sub>A</sub> = -55 °C, 300µs Pulse)	$V_{\mathrm{F4}}$	0.64	V <sub>DC</sub>
Reverse Leakage Current Rated V <sub>R</sub> , T <sub>A</sub> =25 °C	$I_{R1}$	5	mA
Reverse Leakage Current Rated V <sub>R</sub> , T <sub>A</sub> =100 °C	I <sub>R2</sub>	200	mA
<b>Junction Capacitance</b> (V <sub>R</sub> = 5V <sub>DC</sub> , T <sub>A</sub> = 25°C, f = 1MHz)	C <sub>J</sub>	800	pF



For Thermal derating and other characteristic curves please contact SSDI Marketing Department.