



# Solid State Devices, Inc.

14830 Valley View Blvd \* La Mirada, Ca 90638  
Phone: (562) 404-7855 \* Fax: (562) 404-1773  
ssdi@ssdi-power.com \* www.ssdi-power.com

## SDR526 thru SDR529 SDR526SMS thru SDR529SMS

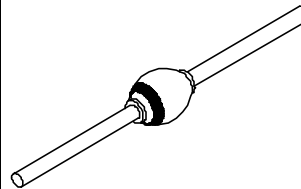
### Designer's Data Sheet

#### FEATURES:

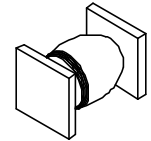
- Hyper Fast Recovery: 35 nsec maximum
- PIV up to 900 Volts
- Avalanche Breakdown
- Hermetically Sealed
- For High Efficiency High Voltage Applications
- Single Chip Construction
- Metallurgically Bonded
- TX, TXV, and Space Level Screening Available

**3 AMPS**  
**600 – 900 VOLTS**  
**35 nsec**  
**HYPER FAST**  
**RECTIFIER**

Axial



Surface Mount  
Square Tab (SMS)



MAXIMUM RATINGS		Symbol	Value	Units
Peak Repetitive Reverse Voltage and DC Blocking Voltage @ 50µA	SDR526	$V_{RRM}$ $V_{RWM}$ $V_R$	600	Volts
	SDR527		700	
	SDR528		800	
	SDR529		900	
Average Rectified Forward Current (Resistive Load, 60 Hz, Sine Wave, $T_A=25^\circ\text{C}$ )		$I_O$	3	Amps
Peak Surge Current (8.3 ms Pulse, Half Sine Wave, Superimposed on $I_O$ , allow junction to reach equilibrium between pulses, $T_A=25^\circ\text{C}$ )		$I_{FSM}$	75	Amps
Operating and Storage Temperature		$T_{OP}$ & $T_{stg}$	-65 to +175	$^\circ\text{C}$
Maximum Thermal Resistance Junction to Lead, L = 0.125" (Axial Lead) Junction to End Tab (Surface Mount)		$R_{qJL}$ $R_{qJE}$	20 10	$^\circ\text{C/W}$

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

**DATA SHEET #: RC0049D**

**DOC**



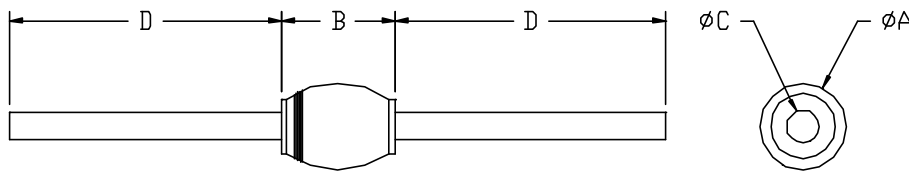
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**SDR526 thru SDR529  
 SDR526SMS thru SDR529SMS**

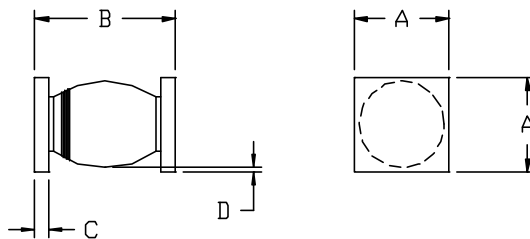
ELECTRICAL CHARACTERISTICS		Symbol	Min	Max	Unit
<b>Instantaneous Forward Voltage Drop</b> ( $I_F = 3 A_{DC}$ , 300 - 500 $\mu$ sec Pulse)	$T_A = 25^\circ C$	$V_{F1}$	—	2.50	<b>Volts</b>
	$T_A = -55^\circ C$	$V_{F2}$	—	2.50	<b>Volts</b>
<b>Reverse Leakage Current</b> (Rated $V_R$ , 300 $\mu$ sec minimum pulse)	$T_A = 25^\circ C$	$I_{R1}$	—	50	<b>mA</b>
	$T_A = 100^\circ C$	$I_{R2}$	—	250	<b>mA</b>
<b>Junction Capacitance</b> ( $V_R = 10 V_{DC}$ , $T_A = 25^\circ C$ , $f = 1$ MHz)		$C_J$	—	50	<b>pF</b>
<b>Reverse Recovery Time</b> ( $I_F = 500$ mA, $I_R = 1$ A, $I_{RR} = 250$ mA, $T_A = 25^\circ C$ )		$t_{rr}$	—	35	<b>ns</b>

**Case Outline: (Axial)**



DIM	MIN	MAX
A	0.140"	0.180"
B	0.170"	0.230"
C	0.046"	0.053"
D	1.00"	—

**Case Outline: (SMS)**



DIM	MIN	MAX
A	0.170"	0.180"
B	0.220"	0.280"
C	0.020"	0.030"
D	0.002"	—

Note: Dimensions prior to soldering.

**NOTES:**

Consult manufacturing for operating curves.