

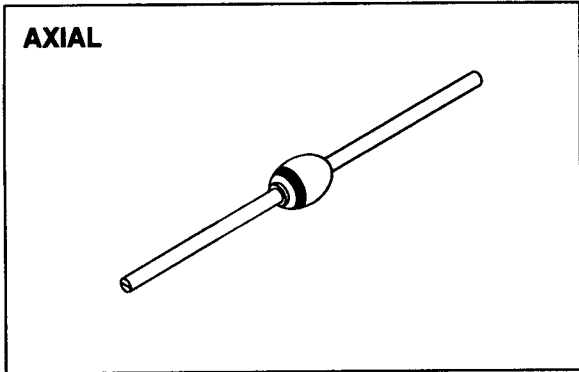
**SDR2G  
 thru  
 SDR2N**

**Designer's Data Sheet**

**1 AMP  
 400-1200 VOLTS  
 50-80 nsec  
 ULTRA FAST  
 RECTIFIER**

**FEATURES:**

- Ultra Fast Recovery: 50-80 nsec Max. @ 25°C  
 80-120 nsec Max. @ 100°C
- Single Chip Construction
- PIV to 1200 Volts
- Low Reverse Leakage Current
- Hermetically Sealed
- For High Efficiency Applications
- Available in Surface Mount versions
- Metallurgically Bonded
- TX, TXV and Space Level Screening Available



**MAXIMUM RATINGS**

RATING	SYMBOL	VALUE	UNIT
<b>Peak Repetitive Reverse                      and DC Blocking Voltage</b>  SDR2G SDR2J SDR2K SDR2M SDR2N	VRRM  VRWM  VR	400 600 800 1000 1200	Volts
<b>Average Rectified Forward Current</b> (Resistive Load, 60Hz, Sine Wave, TA=25°C)	IO	1	Amps
<b>Peak Surge Current</b> (8.3 ms Pulse, Half Sine Wave Superimposed on IO, allow junction to reach equilibrium between pulses, TA=25°C)	IFSM	25	Amps
<b>Operating and storage temperature</b>	Top & Tstg	-65 to +175	°C
<b>Maximum Thermal Resistance</b> Junction to Leads, L=3/8"	RθJL	35	°C/W

# SDR2G thru SDR2N

PRELIMINARY



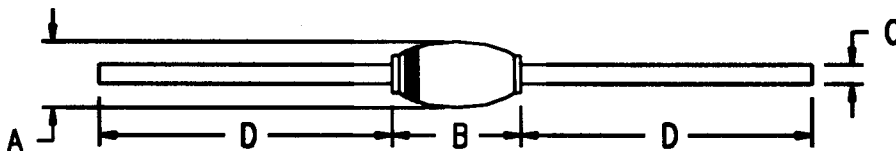
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## ELECTRICAL CHARACTERISTICS

CHARACTERISTICS		SYMBOL	MAXIMUM	UNIT
Instantaneous Forward Voltage Drop ( $I_F = 1 \text{ Adc}$ , $T_A = 25^\circ\text{C}$ , $300\mu\text{s}$ Pulse)	SDR2G-J SDR2K-N	$V_F$	1.9 2.1	Vdc
Instantaneous Forward Voltage Drop ( $I_F = 1 \text{ Adc}$ , $T_A = -55^\circ\text{C}$ , $300\mu\text{s}$ Pulse)	SDR2G-J SDR2K-N	$V_F$	2.05 2.25	Vdc
Reverse Leakage Current (Rated $V_R$ , $T_A = 25^\circ\text{C}$ , $300\mu\text{s}$ pulse minimum)		$I_R$	5	$\mu\text{A}$
Reverse Leakage Current (Rated $V_R$ , $T_A = 100^\circ\text{C}$ , $300\mu\text{s}$ pulse minimum)		$I_R$	0.5	mA
Junction Capacitance ( $V_R = 10 \text{ Vdc}$ , $T_A = 25^\circ\text{C}$ , $f = 1 \text{ MHz}$ )		$C_J$	20	pf
Reverse Recovery Time ( $I_F = 500\text{ma}$ , $I_R = 1\text{A}$ , $I_{RR} = 250\text{mA}$ , $T_A = 25^\circ\text{C}$ )	SDR2G-J SDR2K SDR2M SDR2N	$t_{rr}$	50 60 70 80	nsec

## CASE OUTLINE:



## DIMENSIONS

DIM	MIN.	MAX.
A	---	.150"
B	---	.190"
C	.027"	.033"
D	1.00"	---

## TYPICAL OPERATING CURVES

$T_A = 25^\circ\text{C}$  Unless otherwise specified

