



SOLID STATE DEVICES, INC.

14830 Valley View Blvd * La Mirada, Ca 90638

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

Designer's Data Sheet

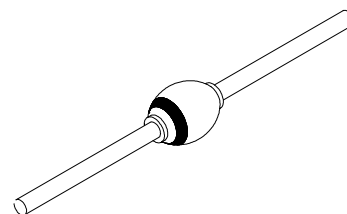
FEATURES:

- **Hyper Fast Recovery: 20 nsec maximum**
- **PIV to 300 Volts**
- **Low Forward Voltage Drop**
- **Hermetically Sealed**
- **Void Free Single Chip Construction**
- **For High Efficiency Applications**
- **Replaces 1N5806 Types**
- **TX, TXV, and Space Level Screening Available**

**SPD205
thru
SPD230**

**2AMP
50 - 300 VOLTS
20nsec
HYPER FAST
RECTIFIER**

AXIAL LEAD



Maximum Ratings		SYMBOL	VALUE	UNITS
Peak Repetitive Reverse and DC Blocking Voltage	SPD205 SPD210 SPD220 SPD230	V_{RRM} V_{RWM} V_R	50 100 200 300	Volts
Average Rectified Forward Current (Resistive Load, 60Hz, Sine Wave, $T_A = 25^\circ\text{C}$)		I_o	2	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}	50	Amps
Operating and Storage Temperature		$T_{OP} \& T_{STG}$	-65 TO +175	$^\circ\text{C}$
Maximum Thermal Resistance Junction to Leads, $L = 3/8"$		$R_{\theta JL}$	38	$^\circ\text{C/W}$

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

DATA SHEET #: RH0099B

**SPD205
thru
SPD230**



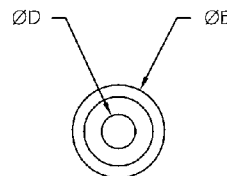
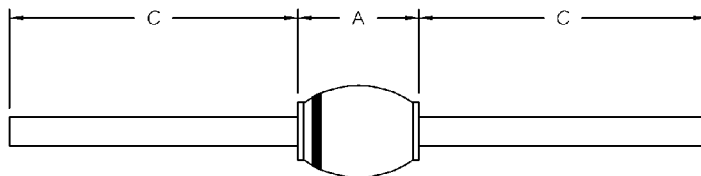
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Electrical Characteristics	SYMBOL	MIN	MAX	UNITS
Instantaneous Forward Voltage Drop ($I_F = 2 A_{DC}$, $T_A = 25^\circ C$, 300 - 500 μs Pulse)	V_{F1}	--	1.0	V_{DC}
Instantaneous Forward Voltage Drop ($I_F = 2 A_{DC}$, $T_A = -55^\circ C$, 300 - 500 μs Pulse)	V_{F2}	--	1.2	V_{DC}
Reverse Leakage Current (Rated V_R , $T_A = 25^\circ C$, 300 μs min Pulse)	I_{R1}	--	10	μA
Reverse Leakage Current (Rated V_R , $T_A = 100^\circ C$, 300 μs min Pulse)	I_{R2}	--	1.0	mA
Maximum Junction Capacitance ($V_R = 10 V$, $T_A = 25^\circ C$, $f = 1 MHz$)	C_J	--	45	pF
Reverse Recovery Time ($I_F = 500 mA$, $I_R = 1 A$, $I_{RR} = 250 mA$, $T_A = 25^\circ C$)	t_{RR}	--	20	nsec

CASE OUTLINE:

DIMENSIONS



DIM	MIN.	MAX.
A	0.190"	0.230"
B	--	0.140"
C	1.00"	--
D	0.027"	0.033"

TYPICAL OPERATING CURVES

($T_A = 25^\circ C$ unless otherwise specified)

