

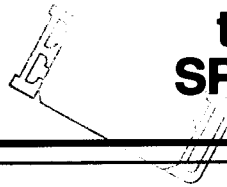


PRELIMINARY

SOLID STATE DEVICES, INC

14849 Firestone Boulevard · La Mirada, CA 90638
Phone: (714) 670-SSDI (7734) · Fax: (714) 522-7424

SPD502
thru
SPD506



5 AMP
200-600 VOLTS
40 nsec
HYPER FAST
RECTIFIER

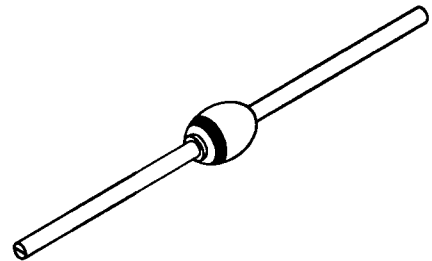
Designer's Data Sheet

FEATURES:

- Hyper Fast Recovery: 40 nsec Maximum
- PIV to 600 Volts
- Low Forward Voltage Drop
- Hermetically Sealed
- Void Free Construction
- For High Efficiency Applications
- Single Chip Construction

- TX, TXV and Space Level Screening available

AXIAL



MAXIMUM RATINGS

RATING	SYMBOL	VALUE	UNIT
Peak Repetitive Reverse and DC Blocking Voltage	SPD502	200	Volts
	SPD503	300	
	SPD504	400	
	SPD505	500	
	SPD506	600	
Average Rectified Forward Current (Resistive Load, 60Hz, Sine Wave, TA=25°C)	IO	5	Amps
Peak Surge Current (8.3 ms Pulse, Half Sine Wave Superimposed on IO, allow junction to reach equilibrium between pulses, TA=25°C)	IFSM	100	Amps
Operating and storage temperature	Top & Tstg	-65 to +175	°C
Maximum Thermal Resistance Junction to Leads, L=3/8"	RθJL	15	°C/W

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

DATA SHEET#: RH0105 A

RMD

SPD502 thru SPD506

PRELIMINARY



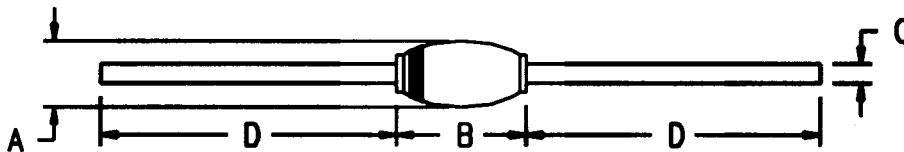
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ELECTRICAL CHARACTERISTICS

CHARACTERISTICS	SYMBOL	MAXIMUM	UNIT
Instantaneous Forward Voltage Drop (IF = 5 Adc, TA=25°C, 300µs Pulse)	VF	1.6	Vdc
Instantaneous Forward Voltage Drop (IF = 5 Adc, TA= - 55°C, 300µs Pulse)	VF	1.75	Vdc
Reverse Leakage Current (Rated VR, TA=25°C, 300µs pulse minimum)	IR	10	µA
Reverse Leakage Current (Rated VR, TA=100°C, 300µs pulse minimum)	IR	1	mA
Junction Capacitance (VR = 10 Vdc, TA=25°C, f= 1 MHz)	CJ	50	pf
Reverse Recovery Time (IF=500mA, IR=1 A, IRR=250mA, TA=25°C)	trr	40	nsec

CASE OUTLINE:



DIMENSIONS

DIM	MIN.	MAX.
A	.140"	.170"
B	.170"	.230"
C	.047"	.053"
D	1.00"	—

TYPICAL OPERATING CURVES

TA=25°C Unless otherwise specified

