



PRELIMINARY

SOLID STATE DEVICES, INC

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

SPD502SMS
thru
SPD506SMS

Designer's Data Sheet

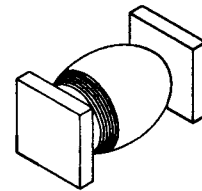
FEATURES:

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

- TX, TXV and Space Level Screening available

5 AMP
200-600 VOLTS
40 nsec
HYPER FAST
RECTIFIER

SURFACE MOUNT
SQUARE TAB



MAXIMUM RATINGS

RATING	SYMBOL	VALUE	UNIT
Peak Repetitive Reverse and DC Blocking Voltage	SPD502SMS SPD503SMS SPD504SMS SPD505SMS SPD506SMS	VRRM 300 VRWM 400 VR 500 600	Volts
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 End Tab	RθJE	10	°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#: RH0107 A

RMD

SPD502SMS thru SPD506SMS

PRELIMINARY



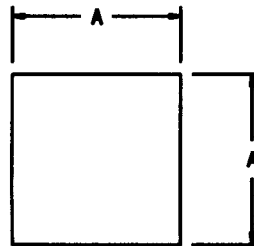
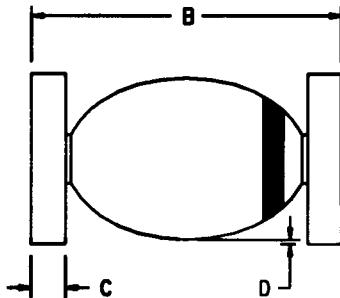
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ELECTRICAL CHARACTERISTICS

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	.172"	.180"
B	.220"	.270"
C	.020"	.035"
D	.002"	--

TYPICAL OPERATING CURVES

TA=25°C Unless otherwise specified

