

1N5186 THRU SPD5192

3 AMP

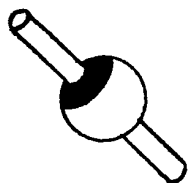
FAST RECOVERY RECTIFIER

100—1000 VOLTS



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CASE STYLE



FEATURES

- FAST RECOVERY 150 NSEC MAX
- PIV TO 1000 VOLTS
- LOW REVERSE LEAKAGE
- HERMETICALLY SEALED
- SINGLE CHIP CONSTRUCTION

MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Peak Repetitive Reverse Voltage and DC Blocking Voltage	$V_{RM} (rep)$ V_R		Volts
1N5186		100	
1N5187		200	
1N5188		400	
1N5190		600	
SPD5191		800	
SPD5192		1000	
RMS Reverse Voltage	V_r		Volts
1N5186		70	
1N5187		140	
1N5188		280	
1N5190		420	
SPD5191		560	
SPD5192		700	
Half Wave Rectified Forward Current, Averaged Over Full Cycle (Resistive Load, 60Hz, Sine Wave $T_A = 55^\circ C$)	I_O	3	Amps
Peak Repetitive Forward Current ($T_A = 55^\circ C$, 8.3 ms Pulse, Allow Junction to Reach Equilibrium Between Pulses)	$I_{FM} (rep)$	25	Amps
Peak Surge Current ($T_A = 55^\circ C$, Superimposed on Rated Current at Rated Voltage, 8.3 ms Pulse)	$I_{FM} (surge)$	100	Amps
Operating and Storage Temperature	T_J, T_{stg}	-65 to +200	$^\circ C$

HERMAL CHARACTERISTICS

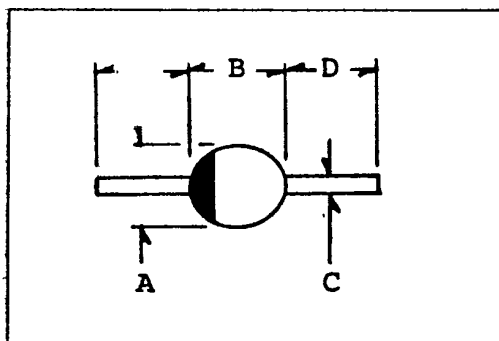
Characteristics	Symbol	Max	Unit
Thermal Resistance, Junction to Leads, $L = 3/8"$	$R_{\theta JL}$	27	$^\circ C/W$

ELECTRICAL CHARACTERISTICS

Characteristics	Symbol	Value	Unit
Max Full Cycle Forward Voltage Drop, Averaged Over Full Cycle (I_O (Max), 60 Hz, Square Wave, $T_A = 55^\circ\text{C}$)	$V_{F(AV)}$	.6	Vdc
Max Instantaneous Forward Voltage Drop ($I_F = 3 \text{ A dc}$, $T_A = 25^\circ\text{C}$, 300 μs Pulse)	V_F	1.3	Vdc
Max Full Cycle Reverse Leakage Current, Averaged Over Full Cycle (Rated V_R 60Hz, Square Wave, $T_A = 100^\circ\text{C}$)	$I_{R(AV)}$	100	$\mu\text{A dc}$
Max Reverse Leakage Current (Rated V_R , $T_A = 25^\circ\text{C}$)	I_R	5	$\mu\text{A dc}$
Max Junction Capacitance ($V_R = 10 \text{ V}$, $T_A = 25^\circ\text{C}$)	C_J	40	pf

REVERSE RECOVERY CHARACTERISTICS

Characteristics	Symbol	Min	Typ	Max	Unit
Reverse Recovery Time ($I_F = 500\text{ma}$, $I_R = 1\text{A}$, $I_{RR} = 250\text{ma}$) 1N5186	t_{rr}	--	--	150	ns
Characteristics	Symbol	Min	Typ	Max	Unit
Reverse Recovery Time ($I_F = 500\text{ma}$, $I_R = 1\text{A}$, $I_{RR} = 250\text{ma}$) 1N5187 1N5188	t_{rr}	--	--	250	ns
Characteristics	Symbol	Min	Typ	Max	Unit
Reverse Recovery Time ($I_F = 500\text{ma}$, $I_R = 1\text{A}$, $I_{RR} = 250\text{ma}$) 1N5190 SPD5191 & SPD5192	t_{rr}	--	--	500	ns

PHYSICAL DIMENSIONS**KEY TO DIMENSIONS:**

(Inches)

A = .170 - .250

B = .240 - .260

C = .048 - .052

D = 1.10 Min.

SSD SOLID STATE DEVICES, INC.