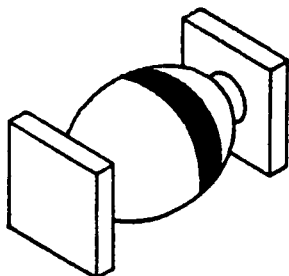


SPD205SM through SPD230SM 2 AMP HYPERFAST RECOVERY RECTIFIER 50-300 VOLTS	SSDI X00035 14830 VALLEY VIEW AVE LA MIRADA, CA 90638 TEL: (213) 921-9660 FAX: (213) 921-2396
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FEATURES

- ▶ ULTRA FAST RECOVERY 20 nsec MAX
- ▶ PIV TO 300 VOLTS
- ▶ LOW REVERSE LEAKAGE
- ▶ HERMETICALLY SEALED
- ▶ SINGLE CHIP CONSTRUCTION
- ▶ FOR HIGH EFFICIENCY APPLICATIONS
- ▶ BETTER THAN OR EQUAL TO UNITRODE UES 1001-1003 AND UES 1104, 1105

MAXIMUM RATINGS

RATING	SYMBOL	VALUE	UNIT
Peak Repetitive Reverse Voltage and DC Blocking Voltage SPD205SM SPD210SM SPD220SM SPD230SM	VRM(rep) VR	 50 100 200 300	Volts
RMS Reverse Voltage SPD205SM SPD210SM SPD220SM SPD230SM	Vr	35 70 140 210	Volts
Half Wave Rectified Forward Current Averaged Over Full Cycle (Resistive Load, 60Hz, Sine Wave, TA=55 °C)	IO	2	Amps
Peak Repetitive Forward Current (TA=55 °C, 8.3ms Pulse, Allow Junction to Reach Equilibrium Between Pulses)	IFM(rep)	8	Amps
Peak Surge Current (TA=55 °C, Superimposed on Rated Current at Rated Voltage, 8.3ms Pulse)	IFM(surge)	50	Amps
Operating and Storage Temperature	TJ, Tstg	-65 to +175	°C

THERMAL CHARACTERISTICS

CHARACTERISTIC	SYMBOL	VALUE	UNIT
Thermal Resistance, Junction to Tabs	RθJC	15	°C/W

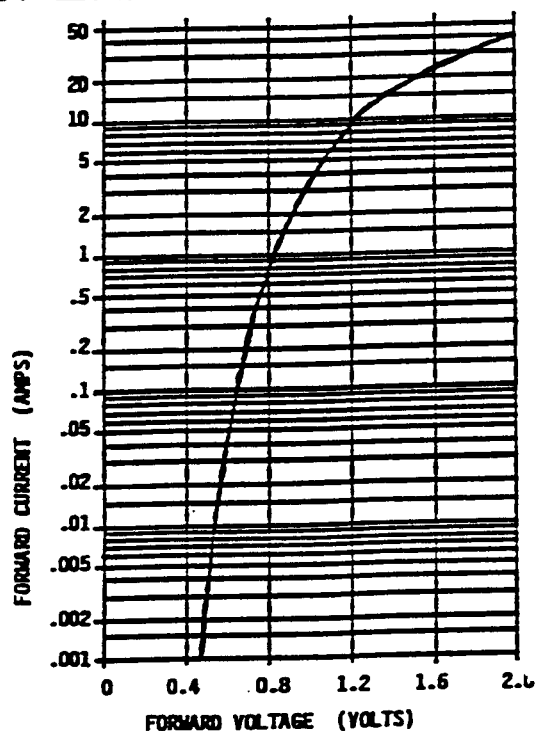
ELECTRICAL CHARACTERISTICS

CHARACTERISTIC	SYMBOL	VALUE	UNITS
Max Full Cycle Forward Voltage Drop, Averaged Over Full Cycle (IO(MAX).60Hz.Square Wave, TA=55 °C)	VF(AV)	.95	Vdc
Max Instantaneous Forward Voltage Drop (IF= 2 Adc, TA = 25 °C, 300 μs Pulse)	VF	1.0	Vdc
Max Full Cycle Leakage Current Averaged Over Full Cycle (Rated VR.60Hz.Square Wave, TA=100 °C)	IR(AV)	200	μAdc
Max Reverse Leakage Current (Rated VR, TA=25 °C)	IR	10	μAdc
Max Junction Capacitance (VR = 10 V, TA = 25 °C)	CJ	35	pf

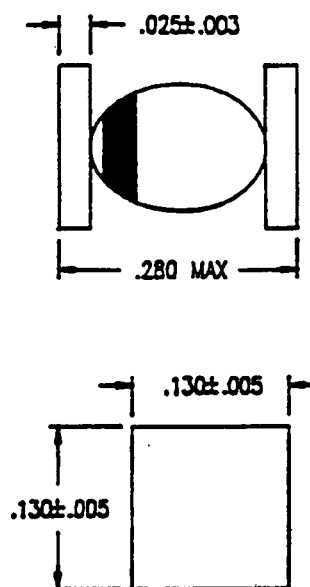
REVERSE RECOVERY CHARACTERISTICS

CHARACTERISTICS	SYMBOL	MIN	TYP	MAX	UNIT
Reverse Recovery Time (IF= 500mA, IR= 1A, IRR= 250mA)	trr	-	-	20	ns

TYPICAL OPERATING CURVE



PHYSICAL DIMENSIONS



SSDI

SOLID STATE DEVICES, INC.

14830 VALLEY VIEW AVENUE ♦ LA MIRADA, CA 90638
TELEPHONE: (213) 921-9660 ♦ FAX: (213) 921-2396

SPD205SM - SPD230SM