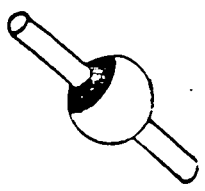


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<h1 style="margin: 0;">SDR1304 thru SDR1308</h1> <h2 style="margin: 0;">3 AMP</h2> <h3 style="margin: 0;">ULTRA FAST RECOVERY RECTIFIER</h3> <h3 style="margin: 0;">200-800 VOLTS</h3>	
<p style="font-size: small; margin: 0;">14830 Valley View Avenue La Mirada, California 90638 (213) 921-9660 TWX 910-583-4807 FAX 213-921-2396</p>	

**CASE STYLE**



**FEATURES**

- PIV TO 800 VOLTS
- ULTRA FAST RECOVERY 70 NSEC MAX
- VOIDLESS CONSTRUCTION
- FOR HIGH EFFICIENCY APPLICATIONS
- HERMETICALLY SEALED
- LOW FORWARD DROP 1.35 VOLTS
- REPLACES UNITRODE UES1304 SERIES

**MAXIMUM RATINGS**

Rating	Symbol	Value	Unit
Peak Repetitive Reverse Voltage and DC Blocking Voltage	$V_{RM (rep)}$		Volts
	<del>SDR1304</del>	$V_R$	200
	<del>SDR1305</del> <i>NONE</i>		400
	<del>SDR1306</del>		600
	<del>SDR1308</del>		800
RMS Reverse Voltage	$V_r$		Volts
		SDR1304	140
		SDR1305	280
		SDR1306	420
		SDR1308	560
Half Wave Rectified Forward Current, Averaged Over Full Cycle (Resistive Load, 60Hz, Sine Wave, $T_A = 55^\circ C$ )	$I_0$	3	Amps
Peak Repetitive Forward Current ( $T_A = 55^\circ C$ , 8.3 ms Pulse, Allow Junction to Reach Equilibrium Between Pulses)	$I_{FM (rep)}$	18	Amps
Peak Surge Current ( $T_A = 55^\circ C$ , Superimposed on Rated Current at Rated Voltage, 8.3 ms Pulse)	$I_{FM (surge)}$	75	Amps
Operating and Storage Temperature	$T_J, T_{stg}$	-65 to +175	$^\circ C$

**THERMAL CHARACTERISTICS**

Characteristics	Symbol	Max	Unit
Thermal Resistance, Junction to Leads, $L = 3/8"$	$R_{\theta JL}$	20	$^\circ C/W$

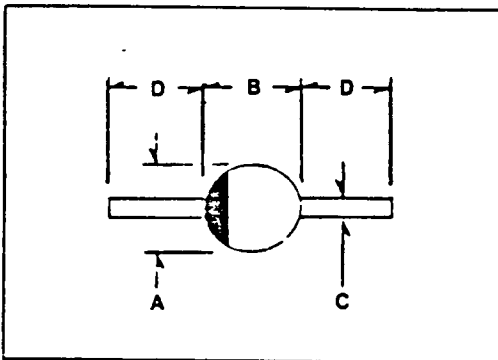
## ELECTRICAL CHARACTERISTICS

Characteristics	Symbol	Value	Unit
Max Full Cycle Forward Voltage Drop, Averaged Over Full Cycle ( $I_F$ (Max), 60 Hz, Square Wave, $T_A = 55^\circ\text{C}$ )	$V_{F(AV)}$	.66	Vdc
Max Instantaneous Forward Voltage Drop ( $I_F = 3$ Adc, $T_A = 25^\circ\text{C}$ , 300 $\mu\text{s}$ Pulse)	$V_F$	1.35	Vdc
Max Full Cycle Reverse Leakage Current, Averaged Over Full Cycle (Rated $V_R$ , 60Hz, Square Wave, $T_A = 100^\circ\text{C}$ )	$I_{R(AV)}$	500	$\mu\text{Adc}$
Max Reverse Leakage Current (Rated $V_R$ , $T_A = 25^\circ\text{C}$ )	$I_R$	20	$\mu\text{Adc}$
Max Junction Capacitance ( $V_R = 10$ V, $T_A = 25^\circ\text{C}$ )	$C_J$	50	pf

## REVERSE RECOVERY CHARACTERISTICS

Characteristics	Symbol	Min	Typ	Max	Unit
Reverse Recovery Time ( $I_F = 500\text{ma}$ , $I_R = 1\text{A}$ , $I_{RR} = 250\text{ma}$ )	$t_{rr}$	-	60	70	ns

## PHYSICAL DIMENSIONS



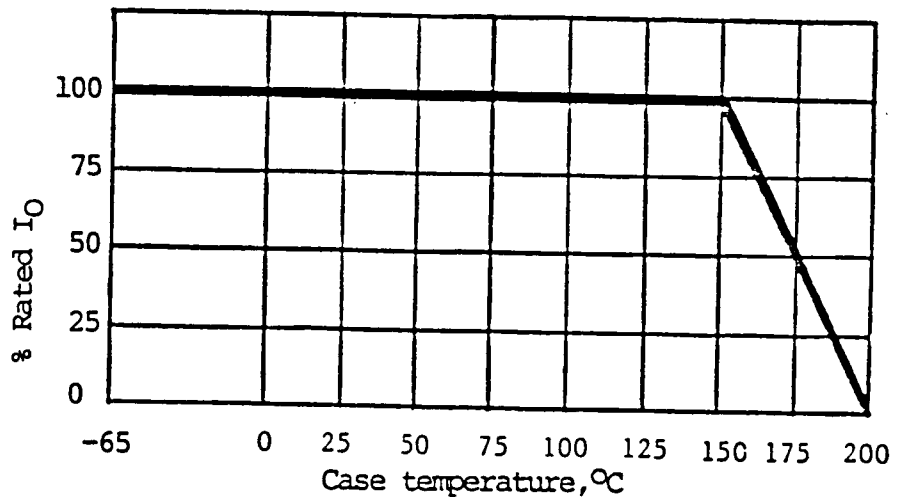
SDR1304 thru SDR1308

### KEY TO DIMENSIONS:

(Inches)

- A = .250 Max.
- B = .260 Max.
- C = .048 - .052
- D = 1.00 Min.

## TYPICAL OPERATING CURVES



**SSDI** SOLID STATE DEVICES, INC.