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# SDR932/61 THRU SDR935/61 30 AMP

## ULTRA FAST RECOVERY RECTIFIER

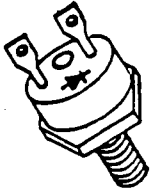
### 200 – 500 VOLTS

# SSDI

14830 Valley View Avenue  
La Mirada, California 90638  
(213) 921-9660  
TWX 910-583-4807  
FAX 213-921-2396

#### CASE STYLE T

#### 2 PIN TO-61



#### FEATURES

- ISOLATED PACKAGE
- ULTRA FAST RECOVERY 35 nsec MAX
- REVERSE VOLTAGE TO 500 VOLTS
- LOW REVERSE LEAKAGE
- HERMETICALLY SEALED
- SINGLE CHIP CONSTRUCTION
- 200°C OPERATING, GOLD EUTECTIC DIE ATTACH, ULTRASONIC ALUMINUM WIRE BONDS

#### MAXIMUM RATINGS

Rating		Symbol	Value	Unit
Peak Repetitive Reverse Voltage and DC Blocking Voltage (IR = 100uA)	SDR932/61	$V_{RM (rep)}$	200	Volts
	SDR933/61	$V_R$	300	
	SDR934/61		400	
	SDR935/61		500	
RMS Reverse Voltage	SDR932/61	$V_r$	140	Volts
	SDR933/61		210	
	SDR934/61		280	
	SDR935/61		350	
Half Wave Rectified Forward Current, Averaged Over Full Cycle (Resistive Load, 60Hz, Sine Wave, $T_C = 55^\circ\text{C}$ )		$I_0$	30	Amps
Peak Repetitive Forward Current ( $T_C = 55^\circ\text{C}$ , 8.3 ms Pulse, Allow Junction to Reach Equilibrium Between Pulses)		$I_{FM (rep)}$	120	Amps
Peak Surge Current ( $T_C = 55^\circ\text{C}$ , Superimposed on Rated Current at Rated Voltage, 8.3 ms Pulse)		$I_{FM (surge)}$	350	Amps
Operating and Storage Temperature		$T_J, T_{stg}$	-65 to +200	°C

#### THERMAL CHARACTERISTICS

Characteristics	Symbol	Max	Unit
Thermal Resistance, Junction to Case	$R_{\theta JC}$	1.5	°C/W

NOTE: All specifications subject to change without notice.

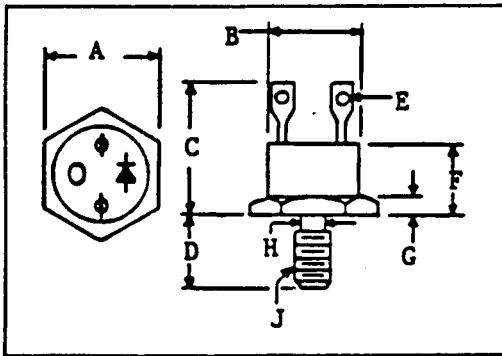
## ELECTRICAL CHARACTERISTICS

Characteristics	Symbol	Value	Unit
Max Full Cycle Forward Voltage Drop, Averaged Over Full Cycle. ( $I_O$ (Max), 60 Hz Square Wave, $T_C = 55^\circ\text{C}$ )	$V_{F(AV)}$	0.85	Vdc
Max Instantaneous Forward Drop ( $I_F = 30$ Adc, $T_C = 25^\circ\text{C}$ , 300 $\mu\text{s}$ Pulse)	$V_F$	1.7	Vdc
Max Reverse Leakage Current ( $T_C = 100^\circ\text{C}$ )	$I_{R(AV)}$	5.0	mAdc
Max Reverse Leakage Current (Rated $V_R$ , $T_C = 25^\circ\text{C}$ )	$I_R$	50	$\mu\text{Adc}$
Max Junction Capacitance ( $V_R = 10$ V, $T_C = 25^\circ\text{C}$ )	$C_J$	250	pf

## REVERSE RECOVERY CHARACTERISTICS

Characteristics	Symbol	Min	Typ	Max	Unit
Reverse Recovery Time ( $I_F = 500\text{ma}$ , $I_R = 1\text{A}$ , $I_{RR} = 250\text{ma}$ ) ( $I_F = 1.0$ Amp to $V_R = 30$ Vdc.)	$t_{rr}$	—	30	35	ns

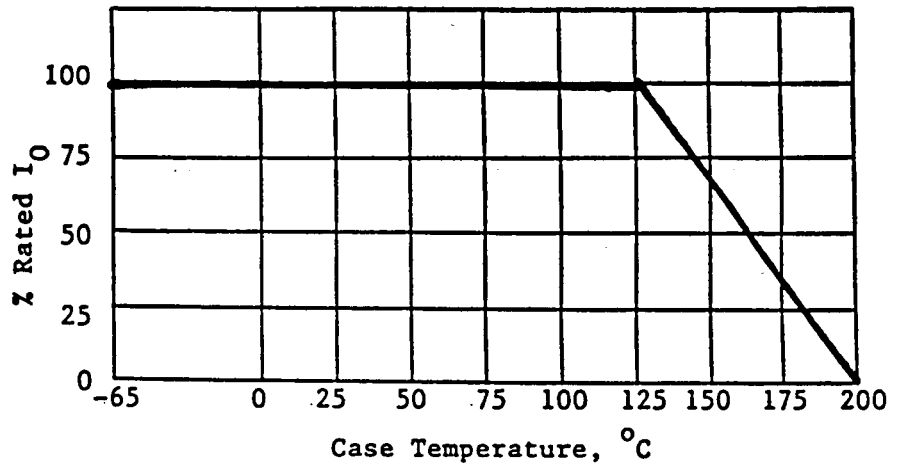
## PHYSICAL DIMENSIONS



### KEY TO DIMENSIONS:

(Inches)	
A	= .667 - .687
B	= .570 - .610
C	= .640 - .875
D	= .422 - .455
E	= .047 - .072 (Diameter)
F	= .325 - .460
G	= .090 - .150
H	= .220 - .249 (Diameter)
J	= $\frac{1}{4}$ - 28 UNF-2A

## TYPICAL OPERATING CURVES



**SSDI** SOLID STATE DEVICES, INC.