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SDR932/61 THRU SDR935/61 30 AMP

ULTRA FAST RECOVERY RECTIFIER

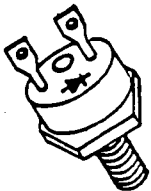
200 – 500 VOLTS

SSDI

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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.

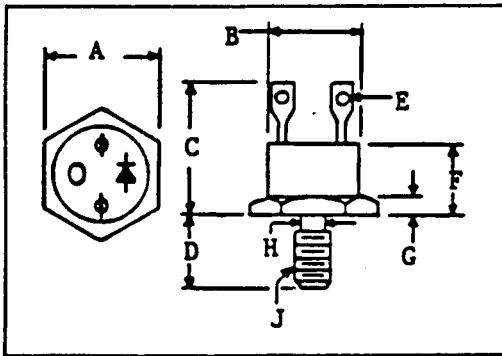
ELECTRICAL CHARACTERISTICS

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 μs 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	μAdc
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

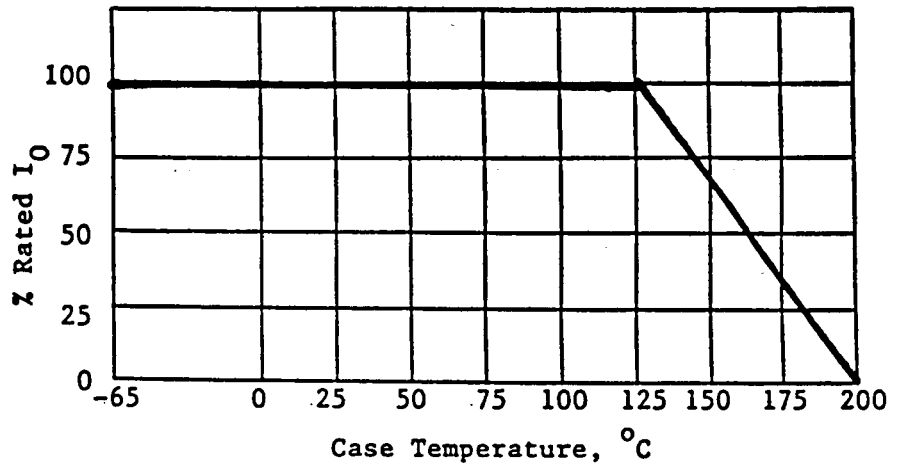
PHYSICAL DIMENSIONS



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.