
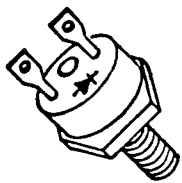


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<p>SDR943/61 THRU SDR946/61 40 AMP ULTRA FAST RECOVERY RECTIFIER 300—600 VOLTS</p>	
	<p>14830 Valley View Avenue La Mirada, California 90638 P. O. Box 577 La Mirada, California 90637 (213) 921-9660 TWX 910-583-4807</p>

CASE STYLE T
2 PIN TO-61



FEATURES

- ISOLATED PACKAGE
- ULTRA FAST RECOVERY 80 NSEC MAX
- REVERSE VOLTAGE TO 600 VOLTS
- LOW REVERSE LEAKAGE
- HERMETICALLY SEALED
- SINGLE CHIP CONSTRUCTION
- 200°C OPERATING, GOLD EUTECTIC DIE ATTACH, ULTRASONIC ALUMINUM WIRE BONDS
- MILITARY GRADE REPLACEMENT FOR COMMERCIAL DO-5

MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Peak Repetitive Reverse Voltage Per Leg and DC Blocking Voltage Per Leg (IR = 100µA)	$V_{RM (rep)}$ V_R	300 400 500 600	Volts
RMS Reverse Voltage Per Leg	V_r	210 280 350 420	Volts
Half Wave Rectified Forward Current, Averaged Over Full Cycle (Resistive Load, 60Hz, Sine Wave, $T_C = 55^\circ C$)	I_0	40	Amps
Peak Repetitive Forward Current ($T_C = 55^\circ C$, 8.3 ms Pulse, Allow Junction to Reach Equilibrium Between Pulses)	$I_{FM (rep)}$	150	Amps
Peak Surge Current ($T_C = 55^\circ C$, Superimposed on Rated Current at Rated Voltage, 8.3 ms Pulse)	$I_{FM (surge)}$	375	Amps
Operating and Storage Temperature	T_J, T_{stg}	-65 to 200	°C

THERMAL CHARACTERISTICS

Characteristics	Symbol	Max	Unit
Thermal Resistance, Junction to Case	$R_{\theta JC}$	1.0	°C/W

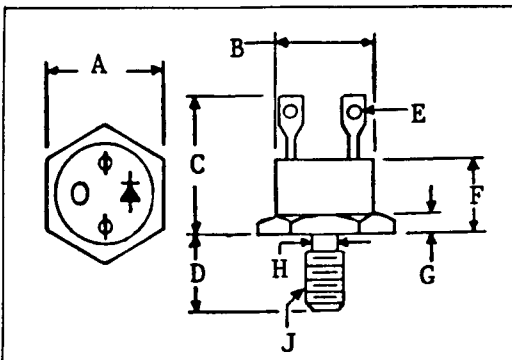
ELECTRICAL CHARACTERISTICS

Characteristics	Symbol	Value	Unit
Max Full Cycle Forward Voltage Drop, Averaged Over Full Cycle. (I_O (Max), 60 Hz. Square Wave, $T_C = 55^\circ\text{C}$)	$V_{F(AV)}$	0.85	Vdc
Max Instantaneous Forward Drop ($I_F = 40$ 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 ($T_C = 25^\circ\text{C}$)	I_R	50	μAdc
Max Junction Capacitance ($V_R = 10$ V, $T_C = 25^\circ\text{C}$)	C_J	350	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	80	ns

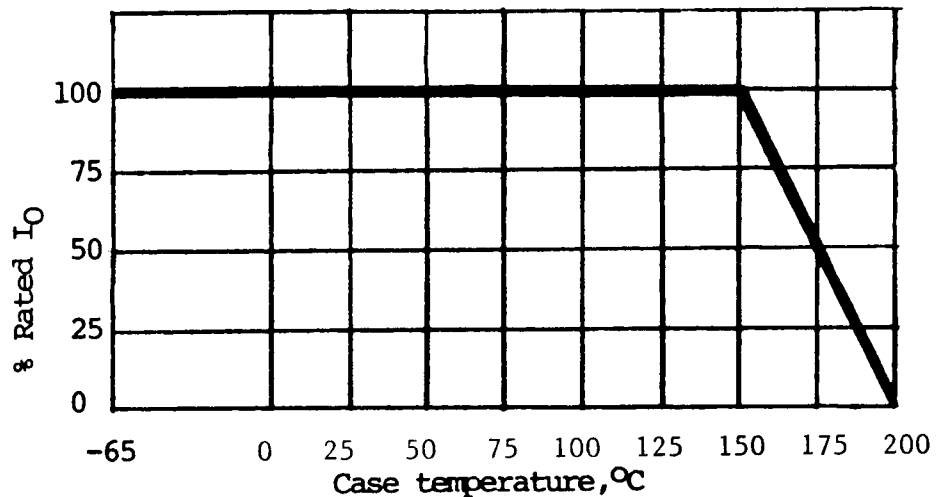
PHYSICAL DIMENSIONS



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



SSD1 SOLID STATE DEVICES, INC.