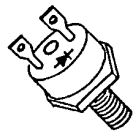
SDR622/59 THRU SDR625/59
20 AMP
ULTRA FAST RECOVERY RECTIFIER
200 – 500 VOLTS

MILITARY GRADE REPLACEMENT FOR COMMERCIAL DO-4

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

CASE STYLE O
2 PIN TO-59



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
- MILITARY GRADE REPLACEMENT FOR COMMERCIAL DO-4

MAXIMUM RATINGS

Rating		Symbol	Value	Unit
Peak Repetitive Reverse Voltage and DC Blocking Voltage (IR = 100 uA)		$V_{RM (rep)}$		Volts
	SDR622/59	V_R	200	
	SDR623/59		300	
	SDR624/59		400	
	SDR625/59		500	
RMS Reverse Voltage		V_r		Volts
	SDR622/59		140	
	SDR623/59		210	
	SDR624/59		280	
	SDR625/59		350	
Half Wave Rectified Forward Current, Averaged Over Full Cycle (Resistive Load, 60Hz, Sine Wave, T_C = 55°C)		I_O	20	Amps
Peak Repetitive Forward Current (T_C = 55°C, 8.3 ms Pulse, Allow Junction to Reach Equilibrium Between Pulses)		$I_{FM (rep)}$	80	Amps
Peak Surge Current (T_C = 55°C, Superimposed on Rated Current at Rated Voltage, 8.3 ms Pulse)		$I_{FM (surge)}$	300	Amps
Operating and Storage Temperature		T_J, T_{stg}	-65 to +200	°C

THERMAL CHARACTERISTICS

Characteristics	Symbol	Max	Unit
Thermal Resistance, Junction to Case	$R_{\theta JC}$	3.0	°C/W

NOTE: All specifications subject to change without notice.

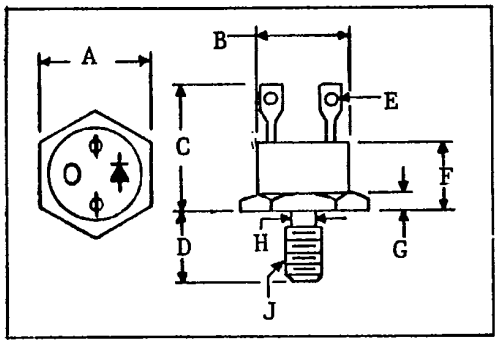
ELECTRICAL CHARACTERISTICS

Characteristics		Symbol	Value	Unit
Max Full Cycle Forward Voltage Drop, Averaged Over Full Cycle, (I_O (Max), 60 Hz Square Wave, T_C = 55°C)		$V_{F(AV)}$	0.75	Vdc
Max Instantaneous Forward Drop (IF = 20 Adc, T_C = 25°C, 300 μs Pulse)		V_F	1.7	Vdc
Max Reverse Leakage Current (T_C = 100°C)	SDR622/59, VR = 100V SDR623/59, VR = 200V SDR624/59, VR = 300V SDR625/59, VR = 400V	I_R	5.0	m Adc
Max Reverse Leakage Current (T_C = 25°C)	SDR622/59, VR = 100V SDR623/59, VR = 200V SDR624/59, VR = 300V SDR625/59, VR = 400V	I_R	50	μ Adc
Max Junction Capacitance (V_R = 10 V, T_C = 25°C)		C_J	150	pf

REVERSE RECOVERY CHARACTERISTICS

Characteristics	Symbol	Min	Typ	Max	Unit
Reverse Recovery Time (I_F = 500ma, I_R = 1A, I_{RR} = 250ma)	t_{rr}	---	30	35	ns

PHYSICAL DIMENSIONS

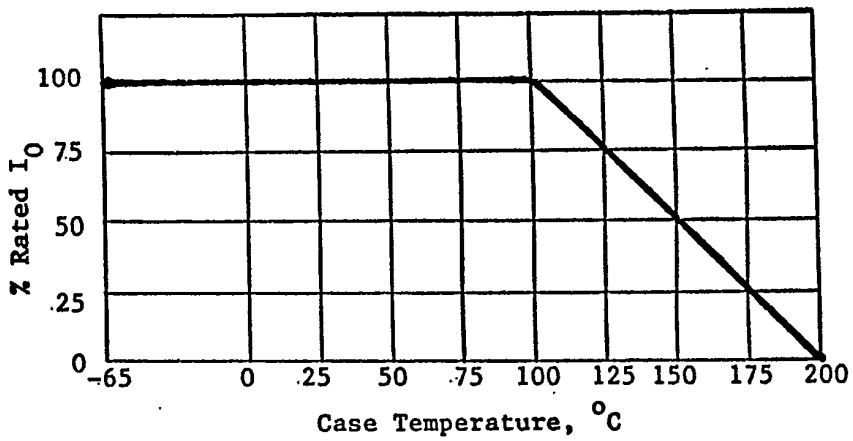


KEY TO DIMENSIONS:

(Inches)

A = .424 - .437
B = .318 - .380
C = .570 - .763
D = .400 - .455
E = .040 - .065 (Diameter)
F = .320 - .468
G = .090 - .150
H = .163 - .189 (Diameter)
J = 10-32 UNF-2A

TYPICAL OPERATING CURVES



SSDI SOLID STATE DEVICES, INC.

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