

**SDR936/3
 thru
 SDR939/3**

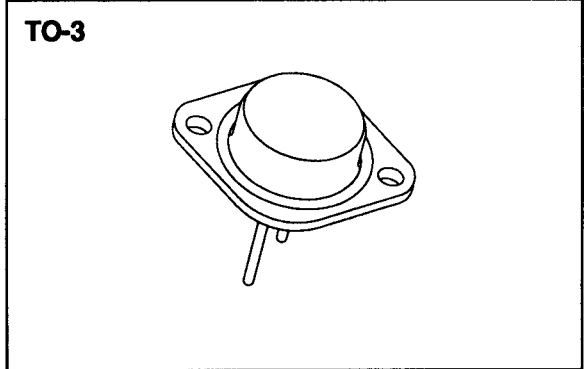
Designer's Data Sheet

**30 AMP
 600-900 VOLTS
 80 nsec
 ULTRA FAST
 RECTIFIER**

FEATURES:

- Soft Recovery Diode
- Ultrafast Recovery: 80 nsec Maximum
- Available in faster recovery versions
- High Surge Rating
- Low Reverse Leakage Current
- Low Junction Capacitance
- Hermetically Sealed Package
- Gold Eutectic Die Attach available
- Ultrasonic Aluminum Wire Bonds

- TX, TXV and Space Level Screening Available



MAXIMUM RATINGS

RATING	SYMBOL	VALUE	UNIT
Peak Repetitive Reverse and DC Blocking Voltage SDR936/3 SDR937/3 SDR938/3 SDR939/3	VRRM VRWM VR	600 700 800 900	Volts
Average Rectified Forward Current (Resistive Load, 60Hz, Sine Wave, TA=25°C)	IO	30	Amps
Peak Surge Current (8.3 ms Pulse, Half Sine Wave, TA=25°C)note 1	IFSM	600	Amps
Operating and storage temperature	Top & Tstg	-65 to +200	°C
Maximum Thermal Resistance Junction to Case, note 1	RθJC	1.6	°C/W

note 1 Pins 1 & 2 connected

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PRELIMINARY



SOLID STATE DEVICES, INC

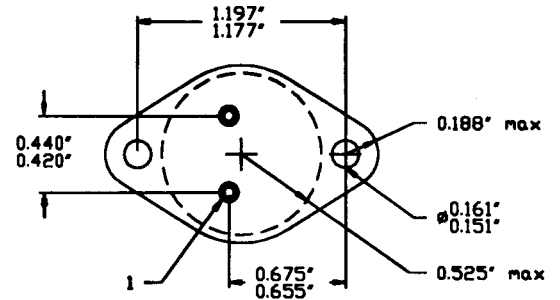
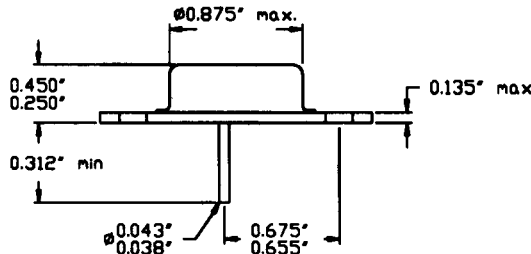
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ELECTRICAL CHARACTERISTICS

CHARACTERISTICS	SYMBOL	MAXIMUM	UNIT
Instantaneous Forward Voltage Drop (IF = 15 Adc, TA=25°C, 300ms Pulse) (IF = 30 Adc, TA=25°C, 300ms Pulse)	VF	1.2 1.3	Vdc
Instantaneous Forward Voltage Drop (IF = 15 Adc, TA=100°C, 300ms Pulse) (IF = 15 Adc, TA= - 55°C, 300ms Pulse)	VF	1.1 1.3	Vdc
Reverse Leakage Current (Rated VR, TA=25°C, 300ms pulse minimum)	IR	100	µA
Reverse Leakage Current (Rated VR, TA=100°C, 300ms pulse minimum)	IR	10	mA
Junction Capacitance (VR = 10 Vdc, TA=25°C, f= 1 MHz)	CJ	100	pf
Reverse Recovery Time (IF=500mA, IR=1 A, IRR=250mA, TA=25°C)	trr	80	nsec

CASE OUTLINE: TO-3

PIN 1: ANODE
CASE: CATHODE
PIN 3: ANODE



TYPICAL OPERATING CURVES

TA=25°C Unless otherwise specified

