

**SDR936/3  
 thru  
 SDR939/3**

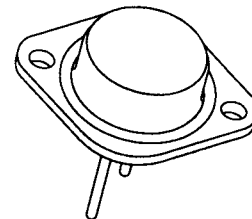
**30 AMP  
 600-900 VOLTS  
 80 nsec  
 ULTRA FAST  
 RECTIFIER**

**Designer's Data Sheet**

**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

TO-3



**MAXIMUM RATINGS**

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

note 1 Pins 1 & 2 connected

NOTE: All specifications are subject to change without notification.  
 SCD's for these devices should be reviewed by SSDI prior to release.

**DATA SHEET#: RU0105 A**

**MED**

**SDR936/3  
thru  
SDR939/3**

PRELIMINARY



**SOLID STATE DEVICES, INC**

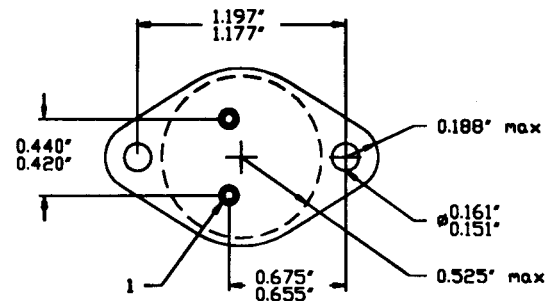
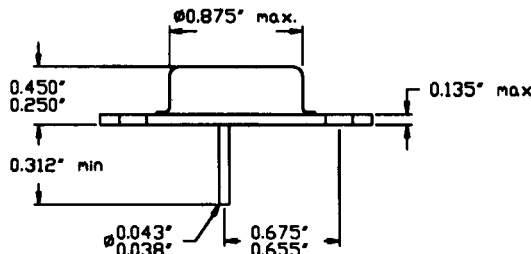
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Phone: (714) 670-SSDI (7734) · Fax: (714) 522-7424

**ELECTRICAL CHARACTERISTICS**

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

**CASE OUTLINE: TO-3**

**PIN 1: ANODE**  
**CASE: CATHODE**  
**PIN 3: ANODE**



**TYPICAL OPERATING CURVES**

TA=25°C Unless otherwise specified

