

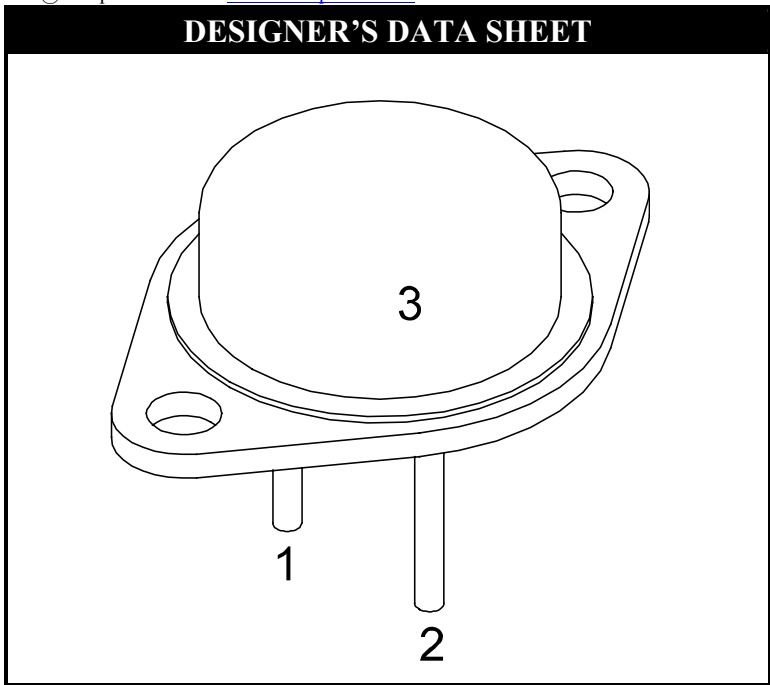


# Solid State Devices, Inc.

14701 Firestone Blvd \* La Mirada, CA 90638  
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# SHA2952TX

## 20A 35nsec 400 V Hyper Fast Positive Centertap Rectifier



- Features:**
- Hyper Fast Recovery: 35nsec Maximum
  - High Surge Rating
  - Low Reverse Leakage Current
  - Low Junction Capacitance
  - Hermetically Sealed
  - Eutectic Die Attach
  - Enhanced Replacement for UES2604-06 series
  - High Reliability Device, Screened to 25 Temperature Cycles (-55 to +175°C) and 48 hrs of HTRB (320V, 150°C)

Maximum Ratings, per leg	Symbol	Value	Units
Peak Repetitive Reverse Voltage	$V_{RRM}$	400	Volts
Average Rectified Forward Current (Resistive Load, 60 Hz Sine Wave, $T_C = 100^\circ\text{C}$ )	$I_o$ Total	20	Amps
Peak Surge Current <sup>1/</sup> (8.3 ms Pulse, Half Sine Wave, $T_A = 25^\circ\text{C}$ )	$I_{FSM}$	200	Amps
Operating & Storage Temperature	$T_{OP} \& T_{STG}$	-65 to +200	°C
Maximum Total Thermal Resistance Junction to Case	$R_{\theta JC}$ Per Leg Both Legs Tied	2.4 1.2	°C/W

SHA2952TX HiRel Screening per MIL-PRF-19500, Table IV, JANTX level:

- Temperature Cycling i.a.w. MIL-STD-750 Method 1051 Condition C
- High Temperature Reverse Bias i.a.w. MIL-STD-750 Method 1038, 48 hrs minimum
- Hermeticity i.a.w. MIL-STD-750 Method 1071

Notes: 1/ per leg



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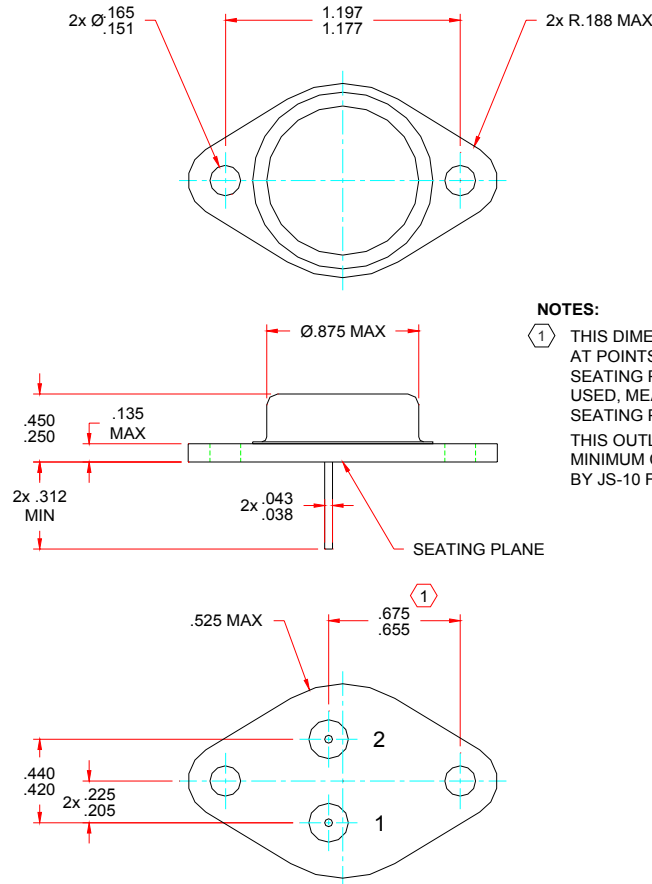
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Electrical Characteristic, per leg		Symbol	Min	Max	Units
Instantaneous Forward Voltage Drop ( $I_F = 15A$ , Pulse)	$T_A = 25\text{ }^\circ\text{C}$	$V_{F1}$	—	1.25	$V_{DC}$
Instantaneous Forward Voltage Drop ( $I_F = 15A$ , Pulse)	$T_A = 125\text{ }^\circ\text{C}$	$V_{F2}$	—	1.15	$V_{DC}$
Reverse Leakage Current (100% of rated $V_R$ , Pulse)	$T_A = 25\text{ }^\circ\text{C}$ $T_A = 100\text{ }^\circ\text{C}$	$I_{R1}$ $I_{R2}$	— —	50 10	$\mu\text{A}$ <b>mA</b>
Reverse Recovery Time ( $I_F = 0.5A$ , $I_R = 1A$ , $I_{RR} = 0.25A$ , $T_A = 25^\circ\text{C}$ )		$t_{RR}$	—	35	nsec
Junction Capacitance ( $V_R = 10V_{DC}$ , $T_A = 25^\circ\text{C}$ , $f = 1\text{MHz}$ )		$C_J$	—	80	pF

**NOTES:** 1/ For Ordering Information, Price, and Availability Contact Factory.

<b>Available Part Numbers:</b>  <b>SHA2952TX</b>	PIN ASSIGNMENT			
	PACKAGE	Pin 1	Pin 2	Case
	<b>TO-3</b>	Anode 1	Anode 2	Cathode

**TO-3:**



**NOTES:**

- ① THIS DIMENSION SHALL BE MEASURED AT POINTS .050 - .055" BELOW THE SEATING PLANE. WHEN GAGE IS NOT USED, MEASUREMENT WILL BE MADE AT SEATING PLANE.
- THIS OUTLINE DOES NOT MEET THE MINIMUM CRITERIA ESTABLISHED BY JS-10 FOR REGISTRATION.