



**Solid State Devices, Inc.**

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**SDA41AUF thru SDA41GUF  
 14.5A Rectifier Assembly**

**14.5 AMPS  
 50 – 600 VOLTS  
 ULTRA FAST RECOVERY  
 SINGLE PHASE BRIDGE RECTIFIER**

**Designer's Data Sheet**

**Part Number/Ordering Information <sup>1/</sup>**

**SDA41**      **UF**

Screening <sup>2/</sup>  
 — = Not Screened  
 TX = TX Level  
 TXV = TXV  
 S = S Level

**Reverse Recovery Time**  
 UF = Ultra Fast Recovery

**Voltage/Family**  
 A = 50V      E = 400V  
 B = 100V     F = 500V  
 C = 200V     G = 600V  
 D = 300V

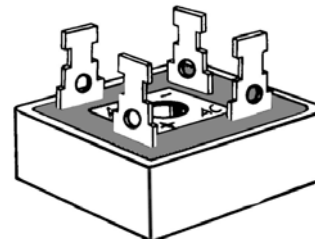
- FEATURES:**
- Ultra Fast Reverse Recovery Time 70 ns Max
  - Average Output Current 14.5 Amps @ 50°C
  - PIV 50 to 600 Volts Per Leg
  - Thermal Resistance Junction to Case 1.5°C/W Max
  - All Welded Interconnects
  - Hermetically Sealed
  - Universal 3 Way Terminals
  - Aluminum Case
  - Available in Higher Voltages
  - Hyper Fast and Standard Recovery Versions Available – Contact Factory
  - TX, TXV, and S-Level Screening Available<sup>2/</sup>

**ELECTRICAL CHARACTERISTICS<sup>3</sup>**

Part Number	Peak Inverse Voltage (per leg)	Sine Wave RMS Input Voltage Max.	Reverse <sup>4</sup> Recovery Time	Average DC Output Current T <sub>c</sub> =Case Temp		Average DC Output Current T <sub>A</sub> = Ambient Temp (no heat sink)		Peak Forward Surge Current (1 Cycle)	Peak Repetitive Forward Current	Maximum Forward Voltage (per leg) @ 3 ADC	Maximum Reverse Current (per leg) @ PIV	
				I <sub>F(AV)</sub>	I <sub>F(AV)</sub>	I <sub>F(AV)</sub>	I <sub>F(AV)</sub>				I <sub>R</sub>	I <sub>R</sub>
Symbol	PIV	V <sub>r</sub>	T <sub>rr</sub>	I <sub>F(AV)</sub>		I <sub>F(AV)</sub>		I <sub>FSM</sub>	I <sub>FRM</sub>	V <sub>F</sub>	I <sub>R</sub>	
Units	Volts	Volts	ns	Amps		Amps		Amps	Amps	Volts	µA	
Conditions			Max	50°C	100°C	25°C	55°C				25°C	100°C
<b>SDA41AUF</b>	50	35	70	14.5	10.5	5	4	75	25	1.35	20	500
<b>SDA41BUF</b>	100	70	70	14.5	10.5	5	4	75	25	1.35	20	500
<b>SDA41CUF</b>	200	140	70	14.5	10.5	5	4	75	25	1.35	20	500
<b>SDA41DUF</b>	300	210	70	14.5	10.5	5	4	75	25	1.35	20	500
<b>SDA41EUF</b>	400	280	70	14.5	10.5	5	4	75	25	1.35	20	500
<b>SDA41FUF</b>	500	350	70	14.5	10.5	5	4	75	25	1.35	20	500
<b>SDA41GUF</b>	600	420	70	14.5	10.5	5	4	75	25	1.35	20	500

**NOTES:**

1. For Ordering Information, Price, Operating Curves, and Availability – Contact Factory.
2. Screening based on MIL-PRF-19500. Screening flows available on request.
3. Unless Otherwise Specified, All Electrical Characteristics @25°C.
4. Recovery Conditions: I<sub>F</sub> = 0.5 Amp, I<sub>R</sub> = 1.0 Amp rec. to .25 Amp.





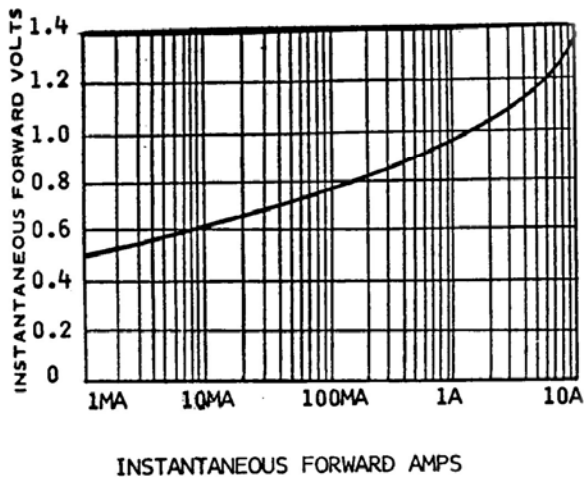
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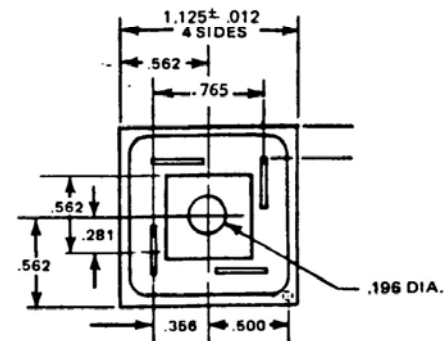
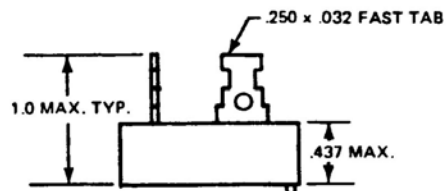
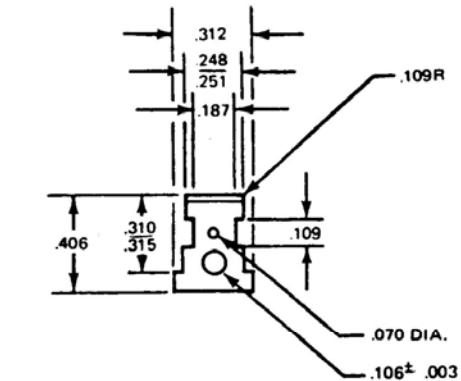
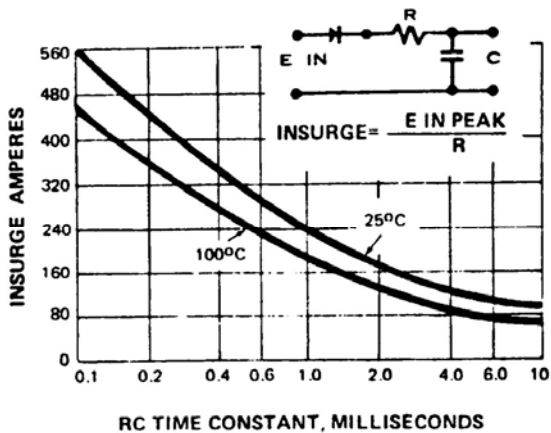
**SDA41AUF thru SDA41GUF**

**SDA41AUF through SDA41GUF:**

**TYPICAL DYNAMIC FORWARD CHARACTERISTICS**

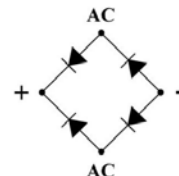


**MAXIMUM RATINGS FOR CAPACITY LOADS**



TOLERANCE XX±.03  
 XXX±.020  
 FRACTIONAL = NOMINAL DIMENSION

SINGLE PHASE BRIDGE RECTIFIER



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

**DATA SHEET #: RA0058A**

**DOC**