



**Solid State Devices, Inc.**

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**SDA25-3UF**

**10 AMP, 70 nsec  
 ULTRA FAST RECOVERY  
 SINGLE PHASE BRIDGE ASSEMBLY**

**Designer's Data Sheet**

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

**SDA25- 03 UF S**

**L Screening <sup>2/</sup>**

- = Not Screened
- TX = TX Level
- TXV = TXV Level
- S = S Level

**Reverse Recovery Time**

UF = Ultra Fast

**Voltage**

03 = 3,000 Volts

**FEATURES:**

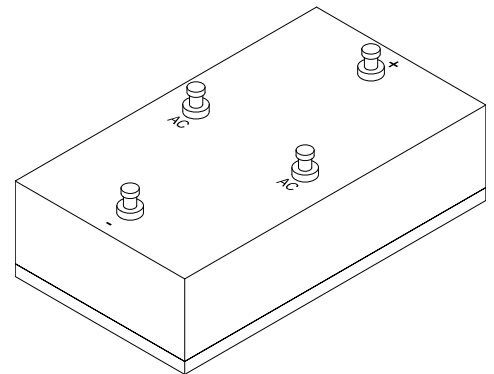
- Ultra fast recovery: 70 nsec maximum
- 3000 V blocking voltage
- 5000 V dielectric voltage
- Average output current: 10 amps
- Low reverse leakage current
- Glass passivated rectifiers
- Hermetically sealed discretes
- Aluminum base for maximum thermal conductivity
- TX, TXV, and S-level screening available<sup>2/</sup>

<b>MAXIMUM RATINGS <sup>3/</sup></b>	<b>SYMBOL</b>	<b>VALUE</b>	<b>UNIT</b>
<b>Peak Repetitive Reverse and DC Blocking Voltage</b>	$V_{RM}$ $V_{RWM}$ $V_R$	3,000	Volts
<b>Average Rectified Forward Current</b> Resistive load, 60Hz, sine wave, $T_A = 25^\circ C$ , no heatsink	$I_O$	10	Amps
<b>Peak Surge Current</b> 8.3 ms pulse, half sine wave, $T_A = 25^\circ C$ , per leg	$I_{FSM}$	75	Amps
<b>Operating and Storage Temperature</b>	$T_{OP}$ & $T_{STG}$	-55 to +150	$^\circ C$
<b>Maximum Thermal Resistance, Junction to Case</b>	$\theta_{JC}$	1.5	$^\circ C/W$

**NOTES:**

- <sup>1/</sup> For ordering information, price, operating curves, and availability- contact factory.
- <sup>2/</sup> Screening based on MIL-PRF-19500. Screening flows available on request.
- <sup>3/</sup> Unless otherwise specified, all electrical characteristics @ 25°C.

**SDA25**





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# SDA25-3UF

ELECTRICAL CHARACTERISTICS (per leg) <sup>3/</sup>			
PARAMETER	SYMBOL	VALUE	UNIT
<b>Instantaneous Forward Voltage Drop</b> $I_F = 3A, 300 - 500\mu\text{sec pulse}$	$V_F$	6	Volts
<b>Reverse Leakage Current</b> Rated $V_R, 300\mu\text{s pulse minimum}$	$I_{R1}$	5	$\mu A$
<b>Reverse Leakage Current</b> Rated $V_R, T_A = 100^\circ C, 300\mu\text{s pulse minimum}$	$I_{R2}$	0.5	mA
<b>Reverse Recovery Time</b> $I_F = 0.5A, I_R = 1.0A, I_{RR} = 0.25A$	$t_{RR}$	70	nsec

### Package Outlines: SDA25

#4-40 UNC-2B  
5 FULL THREADS  
MINIMUM  
2 PLACES

#### TEMPERATURE DERATING CURVE

Case Temperature (°C)	Percent of Maximum Forward Current Rating (%)
0	100
75	100
150	0