



PRELIMINARY

**SOLID STATE DEVICES, INC.**

14005 Stage Road \* Santa Fe Springs, Ca 90670  
Phone: (562) 404-4474 \* Fax: (562) 404-1773

**Designer's Data Sheet**

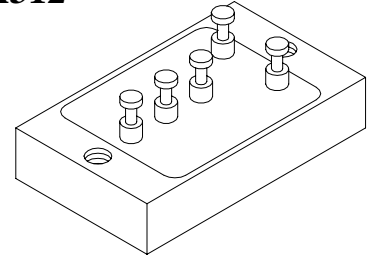
**FEATURES:**

- **Recovery: 5  $\mu$ sec Maximum**
- **50 to 1000 V Blocking Voltage**
- **Average Output Current 10 Amps**
- **Low Reverse Leakage Current**
- **Glass Passivated Rectifiers**
- **Hermetically Sealed Discretes**
- **Aluminum Case for Maximum Thermal Conductivity**
- **TX and TXV Level Screening Available**
- **Consult Factory for Reverse Polarity**

**SDA312A  
thru  
SDA312G**

**10 AMPS  
5  $\mu$ sec  
STANDARD RECOVERY  
3 PHASE BRIDGE ASSY**

**SDA312**



Maximum Ratings		SYMBOL	VALUE	UNITS
Peak Repetitive Reverse and DC Blocking Voltage	SDA312A	V <sub>RRM</sub> V <sub>RWM</sub> V <sub>R</sub>	50	Volts
	SDA312B		100	
	SDA312C		200	
	SDA312D		400	
	SDA312E		600	
	SDA312F		800	
	SDA312G		1000	
Average Rectified Forward Current (Resistive load, 60Hz, Sine Wave, T <sub>A</sub> = 25°C, No Heatsink)		I <sub>o</sub>	10	Amps
Peak Surge Current (8.3 ms Pulse, Half Sine Wave, T <sub>A</sub> = 25°C, per leg)		I <sub>FSM</sub>	75	Amps
Operating and Storage Temperature		T <sub>OP</sub> & T <sub>stg</sub>	-55 TO +150	°C
Maximum Thermal Resistance Junction to Case		$\theta_{JC}$	1.5	°C/W

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

**DATA SHEET # : RA0001A**

# SDA312A thru SDA312G

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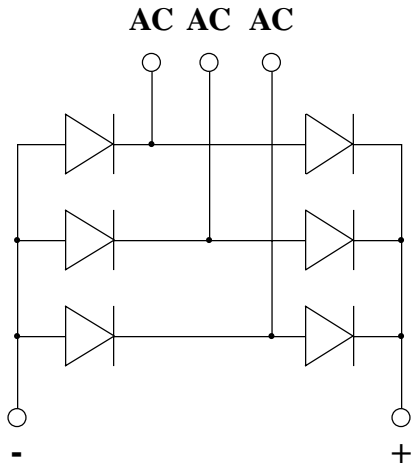
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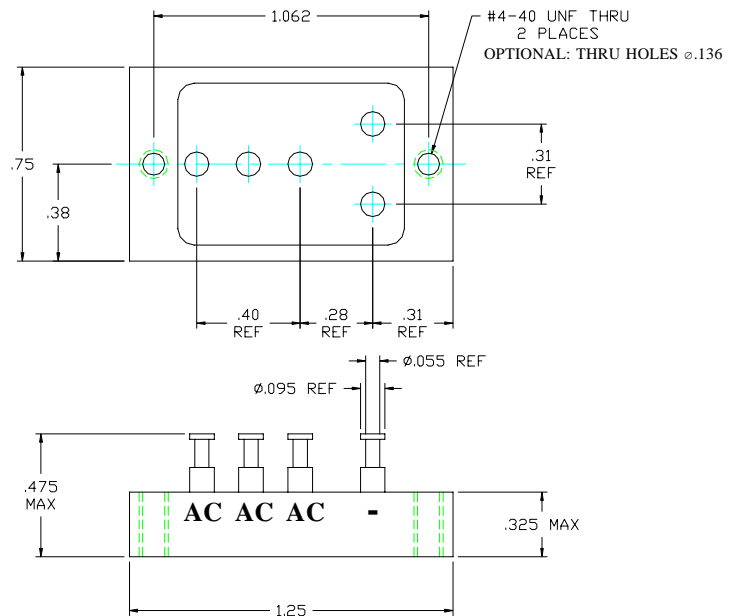
Electrical Characteristics <sup>1/</sup> (per leg)	SYMBOL	VALUE	UNITS
<b>Instantaneous Forward Voltage Drop</b> ( $I_F = 3A$ , 300 - 500 $\mu$ sec pulse) SDA312A-SDA312E SDA312F-SDA312G	$V_{F1}$	1.00 1.10	Vdc
<b>Reverse Leakage Current</b> (Rated $V_R$ , 300 $\mu$ s pulse minimum)	$I_{R1}$	5	$\mu A$
<b>Reverse Leakage Current</b> (Rated $V_R$ , $T_A = 100^\circ C$ , 300 $\mu$ s pulse minimum)	$I_{R2}$	0.10	mA
<b>Reverse Recovery Time</b> ( $I_F = 0.5A$ , $I_R = 1.0A$ , $I_{RR} = 0.25A$ )	$t_{RR}$	5	$\mu$ sec

<sup>1/</sup>  $T_A = 25^\circ C$ , Unless otherwise specified

## CASE OUTLINE: SDA312



Tolerances:  
XX:  $\pm 0.30$   
XXX:  $\pm 0.010$



## TEMPERATURE DERATING CURVE

