



**SOLID STATE DEVICES, INC.**

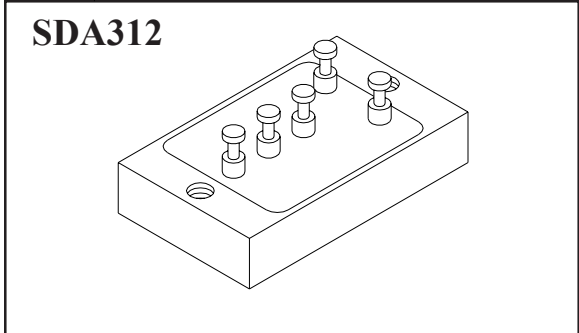
14701 Firestone Blvd. La Mirada, CA 90638  
 Phone: (562) 404-4474 \* Fax: (562) 404-1773

**Designer's Data Sheet**

- FEATURES:**
- **Fast Recovery: 180 -200 nsec 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**

**SDA312AF  
 thru  
 SDA312GF**

**10 AMPS  
 180 - 200 nsec  
 FAST RECOVERY  
 3 PHASE BRIDGE ASSY**



Maximum Ratings		SYMBOL	VALUE	UNITS
Peak Repetitive Reverse and DC Blocking Voltage	SDA312AF	$V_{RRM}$ $V_{RWM}$ $V_R$	50	Volts
	SDA312BF		100	
	SDA312CF		200	
	SDA312DF		400	
	SDA312EF		600	
	SDA312FF		800	
	SDA312GF		1000	
Average Rectified Forward Current (Resistive load, 60Hz, Sine Wave, $T_A = 25^\circ\text{C}$ , No Heatsink)		$I_o$	10	Amps
Peak Surge Current (8.3 ms Pulse, Half Sine Wave, $T_A = 25^\circ\text{C}$ , per leg)		$I_{FSM}$	75	Amps
Operating and Storage Temperature		$T_{OP} \ \& \ T_{stg}$	-55 TO +150	$^\circ\text{C}$
Maximum Thermal Resistance Junction to Case		$R_{\theta JC}$	1.5	$^\circ\text{C/W}$

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

**DATA SHEET # : RC0034B**

# SDA312AF thru SDA312GF



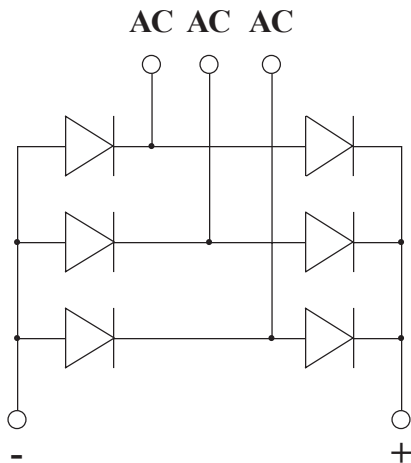
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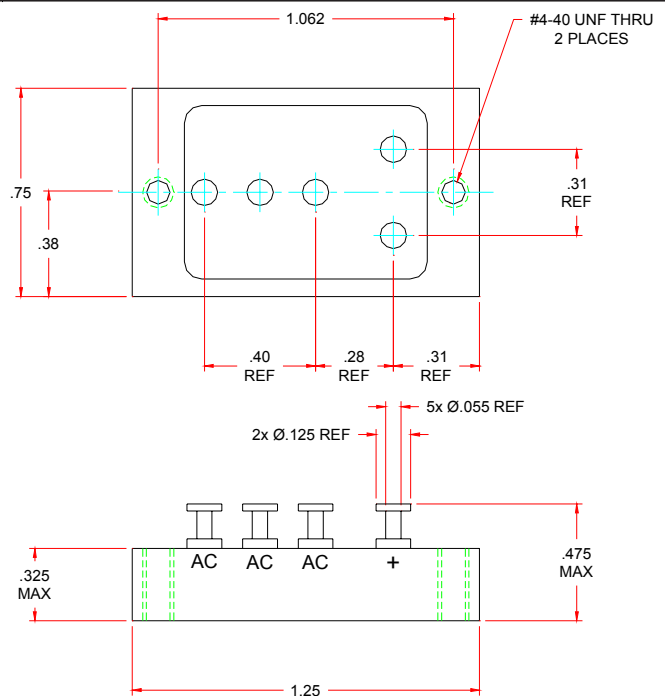
Electrical Characteristics <sup>1/</sup> (per leg)	SYMBOL	VALUE	UNITS
<b>Instantaneous Forward Voltage Drop</b> ( $I_F = 3A, 300 - 500\mu\text{sec pulse}$ )	$V_{F1}$	1.40	Vdc
<b>Reverse Leakage Current</b> (Rated $V_R, 300\mu\text{s pulse minimum}$ )	$I_{R1}$	5	$\mu A$
<b>Reverse Leakage Current</b> (Rated $V_R, T_A = 100^\circ C, 300\mu\text{s pulse minimum}$ )	$I_{R2}$	0.25	mA
<b>Reverse Recovery Time</b> SDA312AF-SDA312EF ( $I_F = 0.5A, I_R = 1.0A, I_{RR} = 0.25A$ )    SDA312FF-SDA312GF	$t_{RR}$	180 200	nsec

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

## CASE OUTLINE: SDA312



Tolerances:  
XX: ".030  
XXX: ".010



## TEMPERATURE DERATING CURVE

