



Solid State Devices, Inc.

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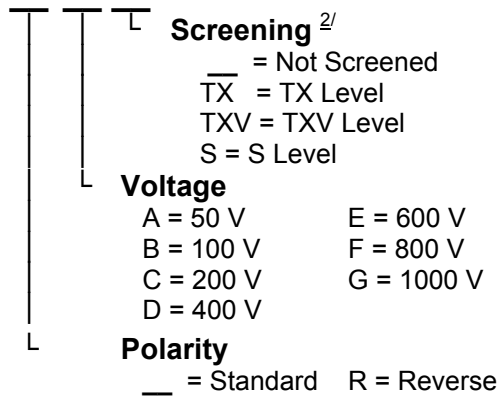
SDA312A thru SDA312G

**15 AMP
 50-1000 VOLTS
 STANDARD RECOVERY
 3 PHASE BRIDGE ASSEMBLY**

DESIGNER'S DATA SHEET

Part Number / Ordering Information ^{1/}

SDA312

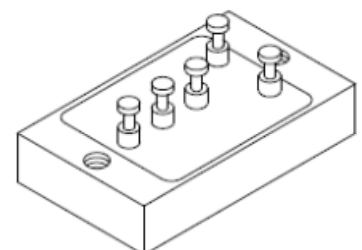


Features:

- Standard Recovery: 5 µsec Maximum
- 50 to 1000 V Blocking Voltage
- Average Output Current 15 Amps
- Low Reverse Leakage Current
- Glass Passivated Void Free Hermetically Sealed Discrete Rectifiers
- Aluminum Case, Electrically Insulated, for Maximum Thermal Conductivity
- TX, TXV, and S Level Screening Available ^{2/}
- Available in Fast, Ultra Fast, and Hyper Fast Recovery

Maximum Ratings ^{3/}	Symbol	Value	Units
Peak Repetitive Reverse and DC Blocking Voltage	SDA312A	50	Volts
	SDA312B	100	
	SDA312C	200	
	SDA312D	400	
	SDA312E	600	
	SDA312F	800	
	SDA312G	1000	
Average Rectified Forward Current Resistive Load, 60 Hz Sine Wave, T _C ≤ 55°C	I _O	15	Amps
Peak Surge Current 8.3 ms Pulse, Half Sine Wave, T _A = 25°C, Per Leg	I _{FSM}	90	Amps
Operating & Storage Temperature	T _{op} & T _{stg}	-55 to +150	°C
Maximum Thermal Resistance Junction to Case (per Assembly)	R _{θJC}	3.5	°C/W

SDA312 Package:



^{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 at 25°C.

^{4/} Unless otherwise specified, all electrical characteristics shall be per leg.

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

DATA SHEET #: RA0001B

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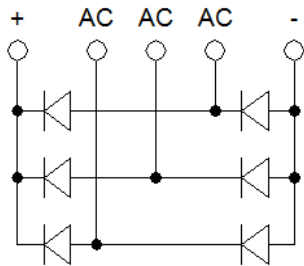
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Electrical Characteristics ^{3/ 4/}	Symbol	Min	Max	Units	
Instantaneous Forward Voltage Drop 300-500 μ sec pulse	$I_F = 3$ A	V_{F1}	–	1.00	V
	$I_F = 9$ A	V_{F2}	–	1.30	
Reverse Leakage Current $V_R =$ Rated, 300 μ sec pulse minimum		I_{R1}	–	5.0	μ A
Reverse Leakage Current $V_R =$ Rated, 300 μ sec pulse minimum, $T_A = 100^\circ$ C		I_{R2}	–	100	μ A
Reverse Recovery Time $I_F = 0.5$ A, $I_R = 1$ A, $I_{RR} = 0.25$ A		t_{RR}	–	5	μ s

Package Outline: SDA312

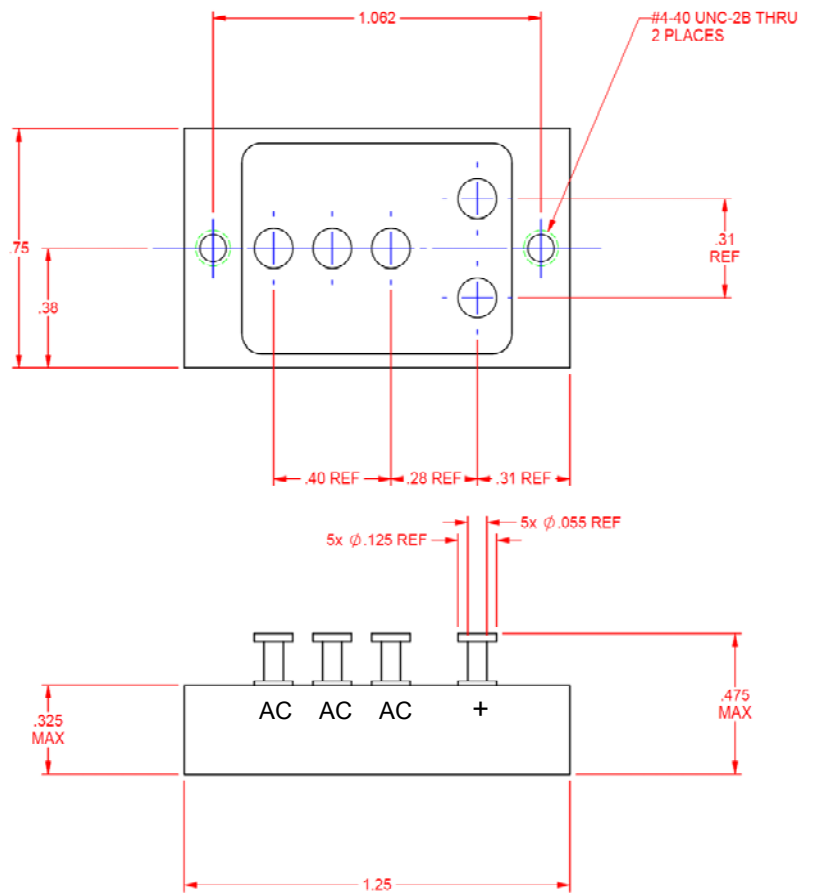
Schematic:



Standard Polarity: AC AC AC +
Reverse Polarity: AC AC AC -

Tolerances (Unless Otherwise Specified):

.XX ± 0.03 "
 .XXX ± 0.010 "



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