



Solid State Devices, Inc.

14830 Valley View Blvd * La Mirada, Ca 90638
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SDA669 Series

30A / 600 - 1000V THREE PHASE BRIDGE RECTIFIER ASSEMBLY

DESIGNER'S DATA SHEET

Part Number / Ordering Information ^{1/}

SDA669 **F**

├── Lead Bend ^{3/} = Straight Leads
 UB = Up Bend
 DB = Down Bend

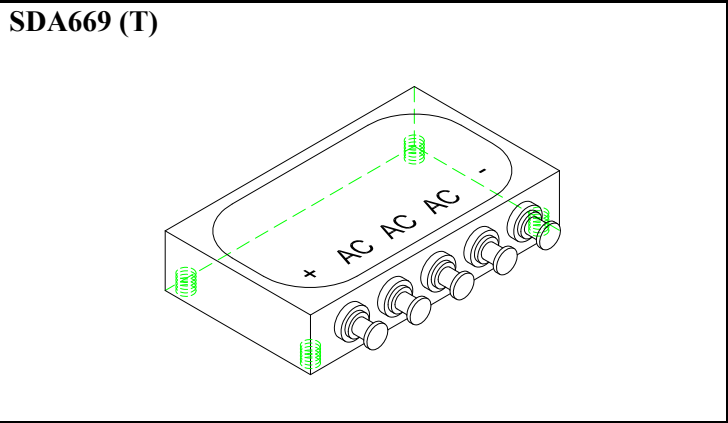
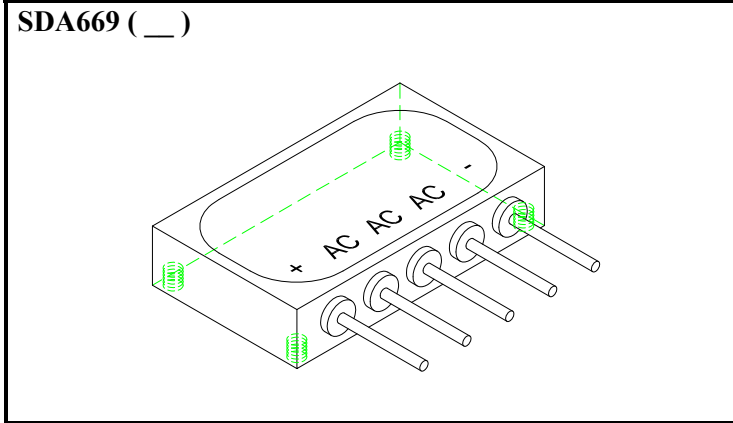
├── Terminals ^{2/ 3/} = Copper Leads
 T = Turret Terminals

├── Speed F = Fast (250 ns typ.)

└── Voltage J = 600 V
 K = 800 V
 M = 1000V

- Features:**
- Up to 1000 V Blocking Voltage
 - Average Output Current 30 Amps
 - Low Reverse Leakage Current
 - Constructed with Void-free, Hermetically Sealed Discretes
 - Aluminum Case for Maximum Thermal Conductivity
 - Small Package Size (1.500 x 0.875 x 0.310")
 - TX and TXV & S Level Screening Available
 - Ultra Fast (70ns) versions available. Contact Factory

Maximum Ratings	Symbol	Value	Units
Peak Repetitive and Peak Surge Reverse Voltage SDA669J SDA669K SDA669M	V_{RRM} V_{RSM} V_R	600 800 1000	Volts
Average Rectified Forward Current ^{4/} (Resistive Load, 60 hz Sine Wave, T _C = 55°C)	I_o	30	Amps
Peak Surge Current (8.3 ms Pulse, Half Sine Wave, T _A = 25 °C, per leg)	I_{FSM}	150	Amps
Operating & Storage Temperature	Top & Tstg	-55 to +150	°C
Maximum Thermal Resistance Junction to Case	$R_{\theta JC}$	1.0	°C/W





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Electrical Characteristic ^{5/}		Symbol	Min	Typ	Max	Units
Instantaneous Forward Voltage Drop (T _A = 25°C, 300 - 500 μsec pulse)	I _F = 3A	V _{F1}	—	—	1.15	V _{DC}
	I _F = 9A	V _{F2}	—	—	1.30	
Reverse Leakage Current (Rated V _R , T _A = 25°C, 300 μsec pulse minimum)		I _{R1}	—	—	5	μA
Reverse Leakage Current (Rated V _R , T _A = 100°C, 300 μsec pulse minimum)		I _{R2}	—	—	60	μA
Reverse Recovery Time (T _A = 25°C, I _F = 0.5A, I _R = 1.0A, I _{RR} = 0.25A)		t _{RR}	—	250	325	nsec

NOTES:

- * Pulse Test: Pulse Width = 300μsec, Duty Cycle = 2%
- 1/ For Ordering Information, Price, and Availability Contact Factory.
- 2/ For Package Outlines Contact Factory.
- 3/ Up and Down Bend Configurations are Available for ‘__’ (Leaded) Packages Only.
- 4/ Derate Linearly at 0.28A/°C for T_C > 55°C.
- 5/ Unless Otherwise Specified, All Electrical Characteristics @25°C.

Available Part Numbers:

SDA669JF; SDA669JFT
SDA669KF; SDA669KFT
SDA669MF; SDA669MFT

Mounting Diagram: ^{2/}

