



Solid State Devices, Inc.

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DESIGNER'S DATA SHEET

Part Number / Ordering Information ^{1/}

SDA628 D — —
 ½ ½ **L** Terminals = Turret Terminals
 ½ ½
 ½ **L** Finish = Aluminum Case
 ½
L Voltage

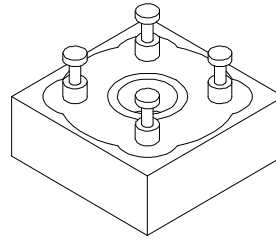
A = 50 V
 B = 100 V
 C = 150 V
 D = 200 V
 E = 250 V
 F = 300 V

SDA628 Series

18 AMPS 300 V ULTRA FAST SINGLE PHASE BRIDGE RECTIFIER ASSEMBLY

Features:

- PIV to 300 V / leg, higher voltages available (consult factory)
- High Surge Current, 150 Amps
- Ultrafast Recovery 40 nS max, faster recovery time available consult factory
- Constructed with Void-Free, Hermetically Sealed Discretes
- Aluminum Case for Maximum Thermal Conductivity
- Electrically Insulated Aluminum Case
- TX and TXV & S Level Screening Available. Contact Factory.



Maximum Ratings		Symbol	Value	Units
Peak Repetitive and Peak Surge Reverse Voltage	A	V_{RRM} V_{RSM} V_R	50	Volts
	B		100	
	C		150	
	D		200	
	E		250	
	F		300	
Average Rectified Forward Current ^{2/3/} (Resistive Load, 60 Hz Sine Wave, $T_C = 55^\circ\text{C}$)		I_o	18	Amps
Peak Surge Current ^{4/} (8.3 ms Pulse, $T_C = 25^\circ\text{C}$)		I_{FSM}	150	Amps
Operating & Storage Temperature Maximum Junction Temperature		T_{OP} & T_{STG} T_J	-55 to +150 175	$^\circ\text{C}$
Maximum Thermal Resistance ^{2/} (Junction to Case)		R_{qJC}	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 #: RA0053A

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Electrical Characteristic ^{3/ 4/}	Symbol	Min	Typ	Max	Units
Instantaneous Forward Voltage Drop (300 - 500 μ sec pulse) $I_F = 6A$	V_{F1}	—	0.90	0.95	Volts
Reverse Leakage Current (Rated V_R , 300 μ sec pulse minimum)	I_{R1}	—	5.0	20	mA
Reverse Leakage Current (Rated V_R , $T_A = 100^\circ C$, 300 μ sec pulse minimum)	I_{R2}	—	0.2	1.0	mA
Reverse Recovery Time $I_F = 0.5A$, $I_R = 1.0A$, $I_{TR} = 0.25A$	t_{rr}	—	35	40	nS
Insulation Leakage $V_R = 1000V$ (All Terminals to Case) $R_{INS} = 100 M\Omega$		—	—	10	mA

NOTES:

1/ For Ordering Information, Price, and Availability Contact Factory.

2/ Rating Applies to the Total Bridge.

3/ Derate Linearly at 0.189 A/ $^\circ C$ for $T_C > 55^\circ C$.

4/ Unless Otherwise Specified, All Electrical Characteristics @25 $^\circ C$.

