



# Solid State Devices, Inc.


14701 Firestone Blvd \* La Mirada, CA 90638  
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# SDA47

## 600 AMP MATCHED POWER SCHOTTKY DIODE ARRAY 35 VOLTS

### Designer's Data Sheet

#### Part Number / Ordering Information<sup>1/</sup>

SDA47  Screening<sup>2/</sup>         = Not Screened  
TX = TX Level  
TXV = TXV Level  
S = S Level

#### FEATURES:

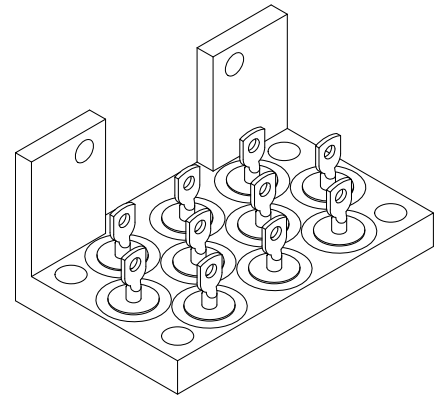
- Each diode is VF matched to within 20mV of each other
- Hermetically sealed Schottky diode cells
- Hot carrier copper heat sinking mounting bracket
- Number and configuration of diodes can be customized
- TX, TXV, and S level screening available - consult factory

MAXIMUM RATINGS <sup>3/</sup>	Symbol	Value	Units
Peak Repetitive Reverse and DC Blocking Voltage <sup>4/</sup>	$V_{RRM}$ $V_{RWM}$ $V_R$	35	V
Average Rectified Forward Current (Resistive load, 60 Hz, sine wave, $T_A = 25^\circ\text{C}$ )	$I_O$	600	A
Peak Surge Current (8.3 ms pulse, half sine wave superimposed on $I_O$ , allow junction to reach equilibrium between pulses, $T_A = 25^\circ\text{C}$ ) <sup>4/</sup>	$I_{FSM}$	800	A
Operating & Storage Temperature	$T_{OP} \ \& \ T_{stg}$	-65 to +150	$^\circ\text{C}$
Maximum Thermal Resistance (Junction to Case)	$R_{\theta JC}$	1.0	$^\circ\text{C/W}$

#### NOTES:

- 1/ For ordering information, price, and availability - contact factory.
- 2/ Screening based on MIL-PRF-19500. Screening flows available on request.
- 3/ Unless otherwise specified, all electrical characteristics @25°C.
- 4/ Per diode.

SDA47





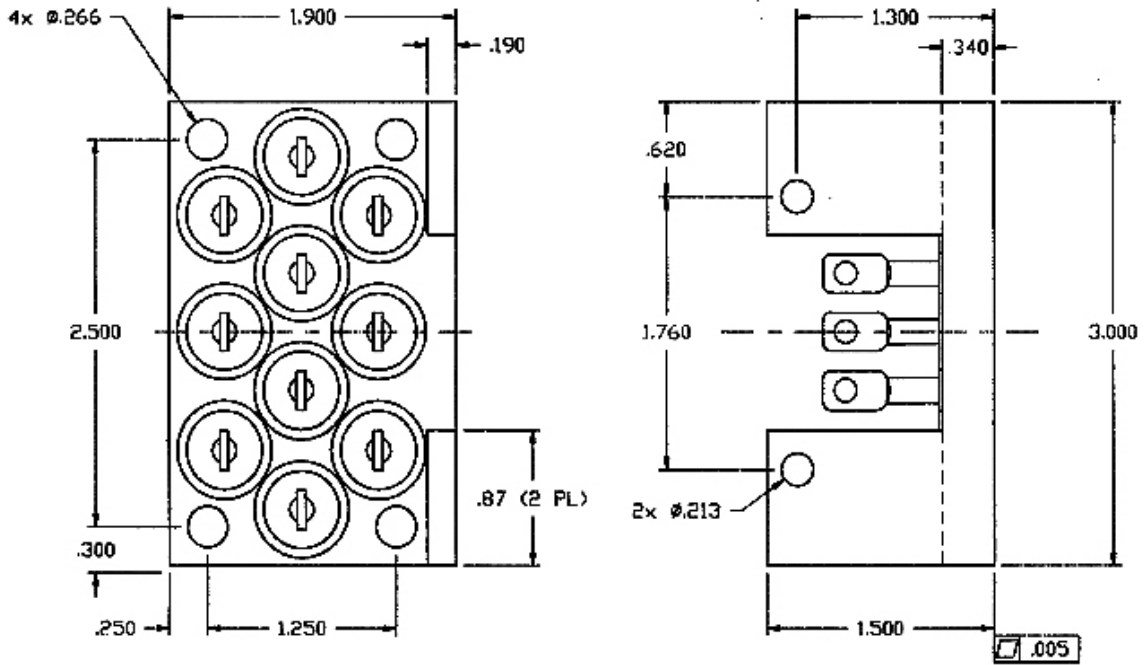
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ELECTRICAL CHARACTERISTICS (per diode) <sup>3/</sup>	Symbol	Max	Units
<b>Instantaneous Forward Voltage Drop</b> ( $I_F = 50\text{ A}$ , $T_A = 25^\circ\text{C}$ , 300 $\mu\text{sec}$ pulse)	$V_{F1}$	0.6	V
<b>Instantaneous Forward Voltage Drop</b> ( $I_F = 50\text{ A}$ , $T_A = -55^\circ\text{C}$ , 300 $\mu\text{sec}$ pulse)	$V_{F2}$	0.7	V
<b>Reverse Leakage Current</b> (Rated $V_R$ , $T_A = 25^\circ\text{C}$ , 300 $\mu\text{sec}$ pulse minimum)	$I_{R1}$	50	mA
<b>Reverse Leakage Current</b> (Rated $V_R$ , $T_A = 100^\circ\text{C}$ , 300 $\mu\text{sec}$ pulse minimum)	$I_{R2}$	250	mA
<b>Junction Capacitance</b> ( $V_R = 10\text{V}$ , $f = 1\text{MHz}$ , $T_A = 25^\circ\text{C}$ )	$C_J$	3000	pF

**Case Outline:**



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

**DATA SHEET #: RS0215B**

**DOC**