



## Solid State Devices, Inc.

14701 Firestone Blvd \* La Mirada, CA 90638-5223

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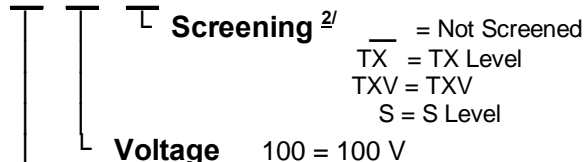
## SED120LB100, SED120LE100, and SED120LT100

### 120 A / 100 V Schottky Rectifier

## Designer's Data Sheet

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

SED120



#### Package

LB = Sedpack 3

LE = Sedpack 3 with Lead

LT = Sedpack 3 with Lead and Heatsink

### FEATURES:

- 100 Volt Schottky Rectifier
- Average Output Current 120 Amps
- Low Reverse Leakage
- Low Forward Voltage Drop
- Hermetically Sealed Power Surface Mount Package
- Guard Ring for Overvoltage Protection
- Eutectic Die Attach
- TX, TXV, and Space Level Screening Available <sup>2/</sup>. Consult Factory.

### MAXIMUM RATINGS <sup>3/</sup>

	Symbol	Value	Units
Peak Repetitive Reverse and DC Blocking Voltage	$V_{RRM}$ $V_{RWM}$ $V_R$	100	Volts
Average Rectified Forward Current (Resistive Load, 60 Hz, Sine Wave, $T_C = 100^\circ\text{C}$ )	$I_O$	120	Amps
Peak Surge Current (8.3 ms pulse, half sine wave superimposed on $I_O$ , allow Junction to reach equilibrium between pulses, $T_A = 25^\circ\text{C}$ )	$I_{FSM}$	1000	Amps
Operating & Storage Temperature	$T_{OP} \text{ \& } T_{stg}$	-55 to +150	$^\circ\text{C}$
Maximum Thermal Resistance (Junction to Case)	$R_{\theta JC}$	0.3	$^\circ\text{C/W}$

SEDPACK 3 (LB)	SEDPACK 3 with Lead (LE)	SEDPACK 3 with Lead and Heatsink (LT)

### NOTES:

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

<sup>2/</sup> Screened to MIL-PRF-19500.

<sup>3/</sup> Unless Otherwise Specified, All Electrical Characteristics @25°C.

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

**DATA SHEET #: SH0014E**

**DOC**



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## SED120LB100, SED120LE100, and SED120LT100

ELECTRICAL CHARACTERISTICS <sup>3/</sup>		Symbol	Maximum Value	Units
<b>Instantaneous Forward Voltage Drop</b> (T <sub>A</sub> =25°C, 300 μsec pulse)	I <sub>F</sub> = 40 A	V <sub>F1</sub>	0.71	V <sub>DC</sub>
	I <sub>F</sub> = 120 A	V <sub>F2</sub>	0.95	
<b>Instantaneous Forward Voltage Drop</b> (300 μsec pulse)	T <sub>A</sub> = 125°C, I <sub>F</sub> = 120 A	V <sub>F3</sub>	0.78	V <sub>DC</sub>
<b>Reverse Leakage Current</b> (Rated V <sub>R</sub> , T <sub>A</sub> = 25°C, 300 μsec pulse minimum)		I <sub>R1</sub>	5.0	mA
<b>Reverse Leakage Current</b> (Rated V <sub>R</sub> , T <sub>A</sub> = 125°C, 300 μsec pulse minimum)		I <sub>R2</sub>	100	mA
<b>Junction Capacitance</b> (V <sub>R</sub> = 5V, f = 1MHz, T <sub>A</sub> = 25°C)		C <sub>J</sub>	3200	pF

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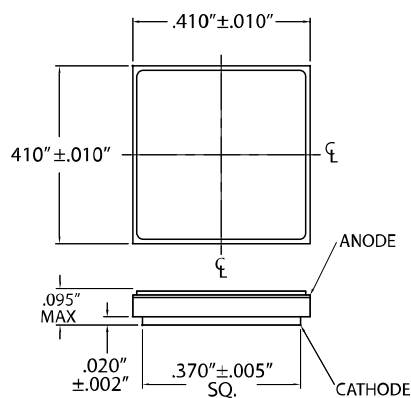
2/ Screened to MIL-PRF-19500.

3/ Unless Otherwise Specified, All Electrical Characteristics @25°C.

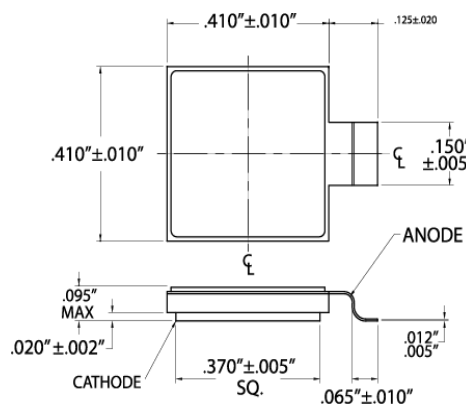
### PIN ASSIGNMENT

Package	TOP	BOTTOM	LEAD
<b>Sedpack 3 (LB)</b>	Anode	Cathode	---
<b>Sedpack 3 with Lead (LE)</b>	Anode	Cathode	Anode
<b>Sedpack 3 with Lead (LT)</b>	Anode	Cathode	Anode

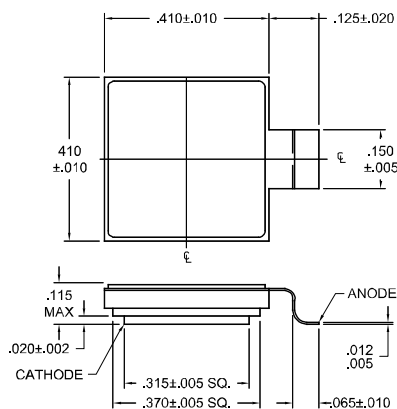
### Case Outline: SEDPACK 3



### Case Outline: SEDPACK 3 with Lead



### Case Outline: SEDPACK 3 with Lead and Heatsink



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