



**Solid State Devices, Inc.**

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**SED100LB/LE/LT150  
 SED100LB/LE/LT200**

**100 A / 150 V and 200 V  
 Schottky Rectifier**

**Designer's Data Sheet**

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

**SED100**

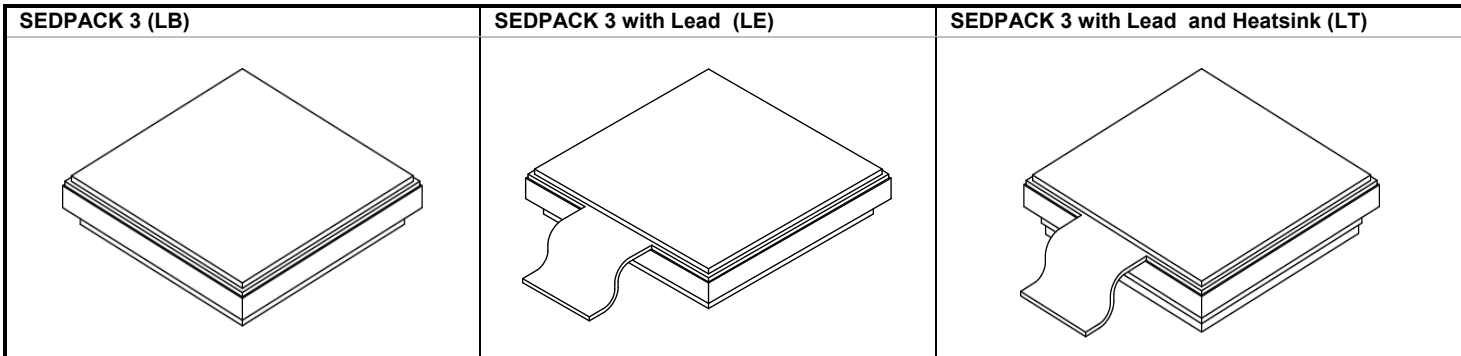
**Screening <sup>2/</sup>**         = Not Screened  
                           TX = TX Level  
                           TXV = TXV  
                           S = S Level

**Voltage**    150 = 150 V  
                   200 = 200 V

**Package**  
 LB = Sedpack 3  
 LE = Sedpack 3 with Lead  
 LT = Sedpack 3 with Lead and Heatsink

- FEATURES:**
- 150 and 200 Volt Schottky Rectifier
  - Average Output Current: 100 Amps
  - Low Reverse Leakage
  - Low Forward Voltage Drop
  - Hermetically Sealed Power Surface Mount Package
  - Guard Ring for Overvoltage Protection
  - Eutectic Die Attach
  - Weight: 1.1 gr (typ)
  - TX, TXV, and Space Level Screening Available <sup>2/</sup>. Consult Factory.

<b>MAXIMUM RATINGS <sup>3/</sup></b>		<b>Symbol</b>	<b>Value</b>	<b>Units</b>
<b>Peak Repetitive Reverse and DC Blocking Voltage</b>	<b>SED100LE150 SED100LE200</b>	$V_{RRM}$ $V_{RWM}$ $V_R$	150 200	<b>Volts</b>
<b>Average Rectified Forward Current</b> (Resistive Load, 60 Hz, Sine Wave, $T_C = 100^\circ\text{C}$ )		$I_O$	100	<b>Amps</b>
<b>Peak Surge Current</b> (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	<b>Amps</b>
<b>Operating &amp; Storage Temperature</b>		$T_{OP}$ & $T_{stg}$	-55 to +150	<b>°C</b>
<b>Maximum Thermal Resistance</b> (Junction to Case)		$R_{\theta JC}$	0.3	<b>°C/W</b>



**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.



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**SED100LB/LE/LT150**  
**SED100LB/LE/LT200**

ELECTRICAL CHARACTERISTICS <sup>3/</sup>		Symbol	Typical	Max	Unit
<b>Instantaneous Forward Voltage Drop</b> (T <sub>A</sub> =25°C, 300 μsec pulse)	I <sub>F</sub> = 25 A	V <sub>F1</sub>	0.70	-	V <sub>DC</sub>
	I <sub>F</sub> = 50 A	V <sub>F2</sub>	0.77	0.85	
	I <sub>F</sub> = 75 A	V <sub>F3</sub>	0.81	-	
	I <sub>F</sub> = 100 A	V <sub>F4</sub>	0.85	0.93	
<b>Instantaneous Forward Voltage Drop</b> (T <sub>A</sub> =125°C, 300 μsec pulse)	I <sub>F</sub> = 25 A	V <sub>F5</sub>	0.55	-	V <sub>DC</sub>
	I <sub>F</sub> = 50 A	V <sub>F6</sub>	0.62	0.70	
	I <sub>F</sub> = 75 A	V <sub>F7</sub>	0.67	-	
	I <sub>F</sub> = 100 A	V <sub>F8</sub>	0.71	0.79	
<b>Instantaneous Forward Voltage Drop</b> (T <sub>A</sub> =150°C, 300 μsec pulse)	I <sub>F</sub> = 25 A	V <sub>F9</sub>	0.50	-	V <sub>DC</sub>
	I <sub>F</sub> = 50 A	V <sub>F10</sub>	0.58	-	
	I <sub>F</sub> = 75 A	V <sub>F11</sub>	0.64	-	
	I <sub>F</sub> = 100 A	V <sub>F12</sub>	0.68	-	
<b>Instantaneous Forward Voltage Drop</b> (T <sub>A</sub> =-55°C, 300 μsec pulse)	I <sub>F</sub> = 25 A	V <sub>F9</sub>	0.78	-	V <sub>DC</sub>
	I <sub>F</sub> = 50 A	V <sub>F10</sub>	0.95	-	
	I <sub>F</sub> = 75 A	V <sub>F11</sub>	1.10	-	
	I <sub>F</sub> = 100 A	V <sub>F12</sub>	1.26	-	
<b>Reverse Leakage Current</b> (Rated V <sub>R</sub> , 300 μsec pulse minimum)	T <sub>A</sub> = 25°C	I <sub>R1</sub>	3	50	μA
	T <sub>A</sub> = 100°C	I <sub>R2</sub>	1.5	-	mA
	T <sub>A</sub> = 125°C	I <sub>R3</sub>	6.5	20	mA
	T <sub>A</sub> = 150°C	I <sub>R4</sub>	30	-	mA
<b>Junction Capacitance</b> (f = 1MHz, T <sub>A</sub> = 25°C)	V <sub>R</sub> = 5V	C <sub>J</sub>	2250	-	pF
	V <sub>R</sub> = 10V		1550	2000	

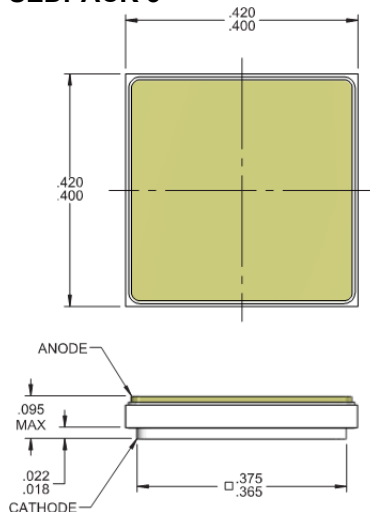
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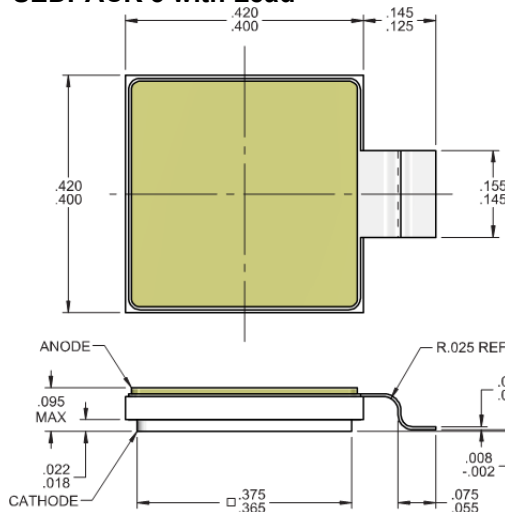
**PIN ASSIGNMENT**

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

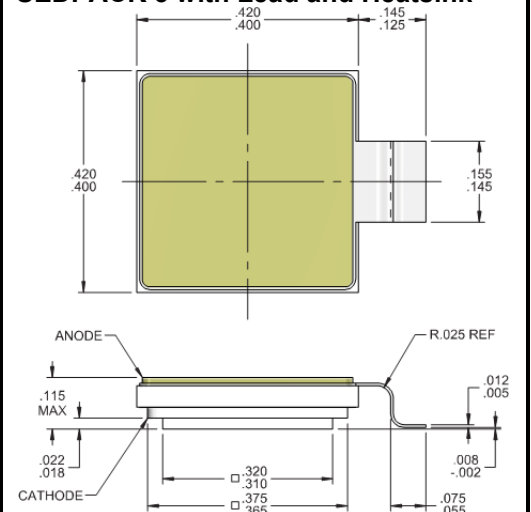
**Case Outline:  
SEDPACK 3**



**Case Outline:  
SEDPACK 3 with Lead**



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



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

**DATA SHEET #: SH0081B**

**DOC**