



Solid State Devices, Inc.

14701 Firestone Blvd * La Mirada, CA 90638-5223

Phone: (562) 404-4474 * Fax: (562) 404-1773

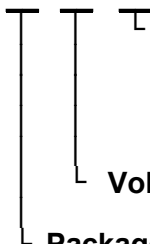
ssdi@ssdi-power.com * www.ssdi-power.com

SED150LB100LL, SED150LE100LL, and SED150LT100LL

Designer's Data Sheet

Part Number / Ordering Information ^{1/}

SED150



Screening ^{2/}

— = Not Screened

TX = TX Level

TXV = TXV Level

S = S Level

Voltage 100 = 100 V

Package

LB = Sedpack 3

LE = Sedpack 3 with Lead

LT = Sedpack 3 with Lead and Heatsink

**150 AMP
100 VOLTS
Low Leakage, Low VF
Schottky Rectifier**

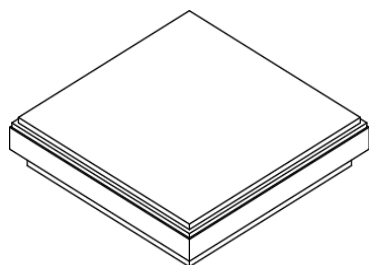
FEATURES:

- 100 Volt Schottky Rectifier
- Average Output Current 150 Amps
- Very Low Reverse Leakage
- Low Forward Voltage Drop: 0.8 V typ @ 100 A
- Hermetically Sealed Power Surface Mount Package
- Guard Ring for Overvoltage Protection

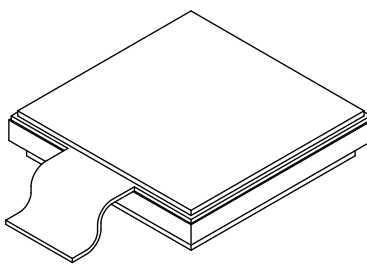
MAXIMUM RATINGS^{3/}

	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	150	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 +175	$^\circ\text{C}$
Maximum Thermal Resistance (Junction to Case)	$R_{\theta JC}$	0.3	$^\circ\text{C/W}$

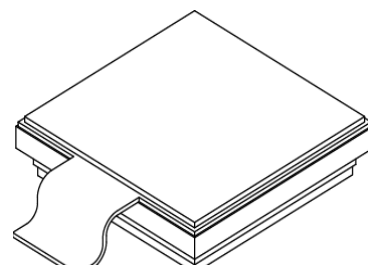
SEDPACK 3 (LB)



SEDPACK 3 with Lead (LE)



SEDPACK 3 with Lead and Heatsink (LT)



- NOTES:**
- ^{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.

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

DATA SHEET #: SH0120C

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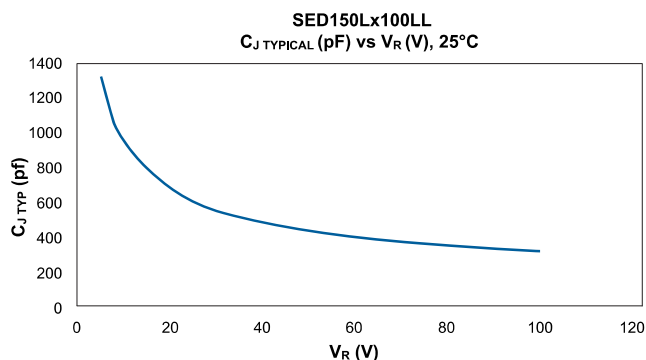
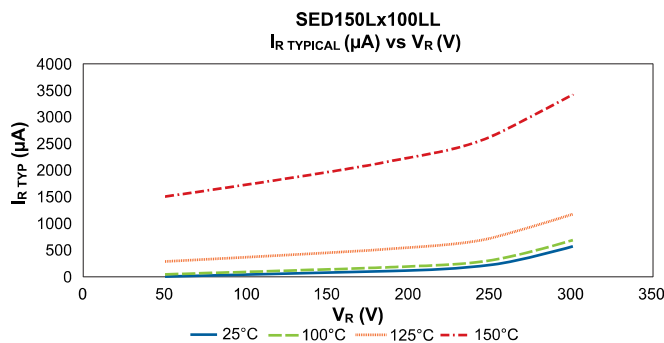
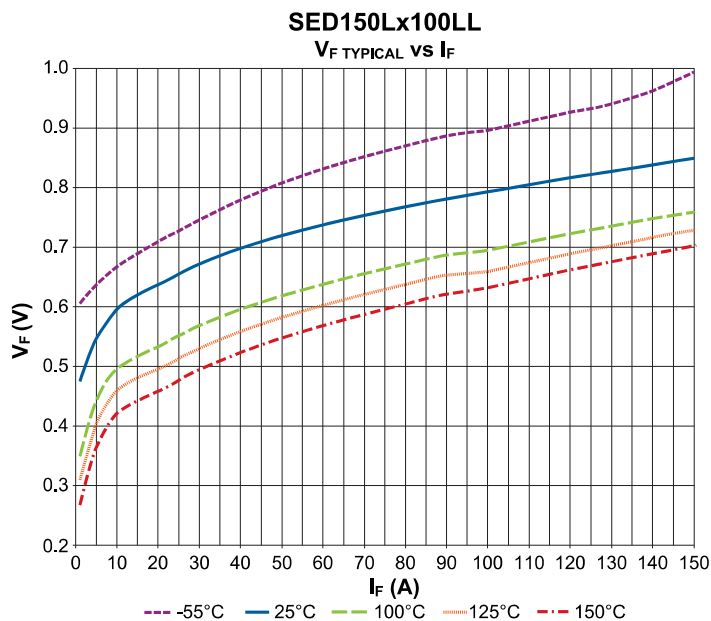
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ELECTRICAL CHARACTERISTICS		Symbol	Typ	Max	Units
Instantaneous Forward Voltage Drop ($T_A = 25^\circ\text{C}$, 300 μsec pulse)	$I_F = 20\text{ A}$	V_{F1}	0.64	0.68	V_{DC}
	$I_F = 40\text{ A}$	V_{F2}	0.70	—	
	$I_F = 60\text{ A}$	V_{F3}	0.74	0.78	
	$I_F = 100\text{ A}$	V_{F4}	0.80	—	
	$I_F = 120\text{ A}$	V_{F5}	0.82	0.86	
	$I_F = 150\text{ A}$	V_{F6}	0.85	0.90	
Instantaneous Forward Voltage Drop ($T_A = 125^\circ\text{C}$, 300 μsec pulse)	$I_F = 20\text{ A}$	V_{F7}	0.50	0.54	V_{DC}
	$I_F = 40\text{ A}$	V_{F8}	0.56	—	
	$I_F = 60\text{ A}$	V_{F9}	0.60	0.64	
	$I_F = 100\text{ A}$	V_{F10}	0.66	—	
	$I_F = 120\text{ A}$	V_{F11}	0.69	0.73	
	$I_F = 150\text{ A}$	V_{F12}	0.73	0.76	
Instantaneous Forward Voltage Drop ($T_A = -55^\circ\text{C}$, 300 μsec pulse)	$I_F = 20\text{ A}$	V_{F13}	0.70	0.75	V_{DC}
	$I_F = 40\text{ A}$	V_{F14}	0.78	—	
	$I_F = 60\text{ A}$	V_{F15}	0.83	0.88	
	$I_F = 100\text{ A}$	V_{F16}	0.90	—	
	$I_F = 120\text{ A}$	V_{F17}	0.93	0.98	
	$I_F = 150\text{ A}$	V_{F19}	1.00	—	
Reverse Leakage Current (Rated V_R , 300 μsec pulse minimum)	$T_A = 25^\circ\text{C}$	I_{R1}	0.07	0.5	mA
	$T_A = 100^\circ\text{C}$	I_{R2}	0.20	—	
	$T_A = 125^\circ\text{C}$	I_{R3}	0.80	5	
	$T_A = 150^\circ\text{C}$	I_{R4}	3.30	—	
Junction Capacitance ($f = 1\text{ MHz}$, $T_A = 25^\circ\text{C}$)	$V_R = 5\text{ V}$	C_{J1}	3000	—	pF
	$V_R = 10\text{ V}$	C_{J2}	2100	2600	



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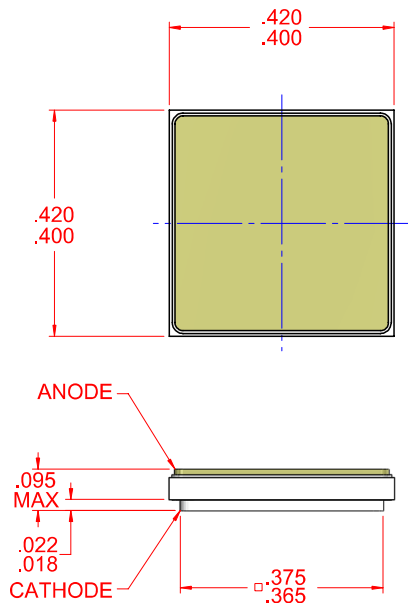
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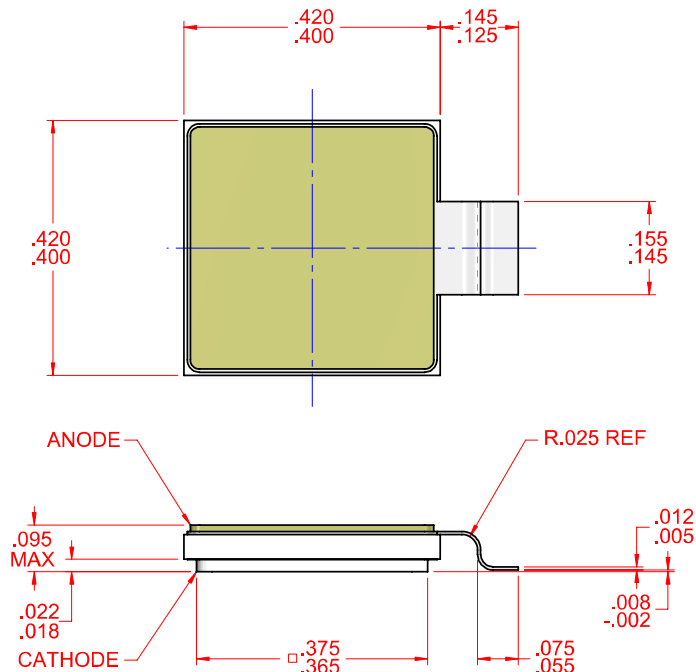
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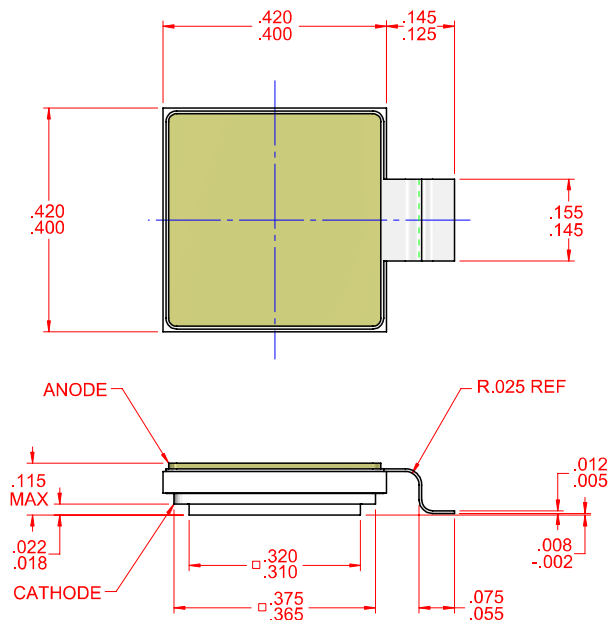
Case Outline: SEDPACK 3



Case Outline: SEDPACK 3 with Lead



Case Outline: SEDPACK 3 with Lead and Heatsink



PIN ASSIGNMENT

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

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