



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

SED120LB100, SED120LE100, and SED120LT100

120 A / 100 V Schottky Rectifier

Designer's Data Sheet

Part Number / Ordering Information ^{1/}

SED120

Screening ^{2/}

— = Not Screened
TX = TX Level
TXV = TXV
S = S Level

Voltage 100 = 100 V

Package

LB = Sedpack 3

LE = Sedpack 3 with Lead

LT = Sedpack 3 with Lead and Heatsink

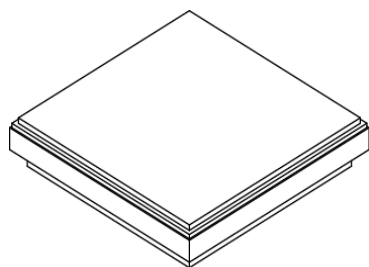
FEATURES:

- 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 ^{2/}. Consult Factory.

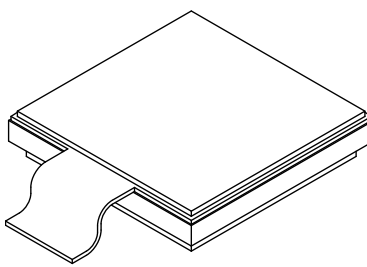
MAXIMUM RATINGS ^{3/}

	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	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	$T_{OP} \& T_{stg}$	-55 to +150	$^\circ\text{C}$
Maximum Thermal Resistance (Junction to Case)	$R_{\theta JC}$	0.3	$^\circ\text{C/W}$

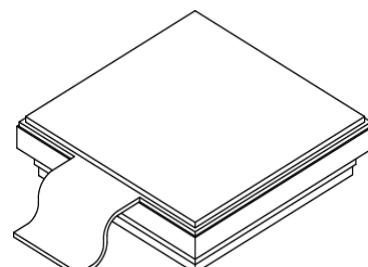
SEDPACK 3 (LB)



SEDPACK 3 with Lead (LE)



SEDPACK 3 with Lead and Heatsink (LT)



NOTES:

^{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 $^\circ\text{C}$.

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

DATA SHEET #: SH0014G

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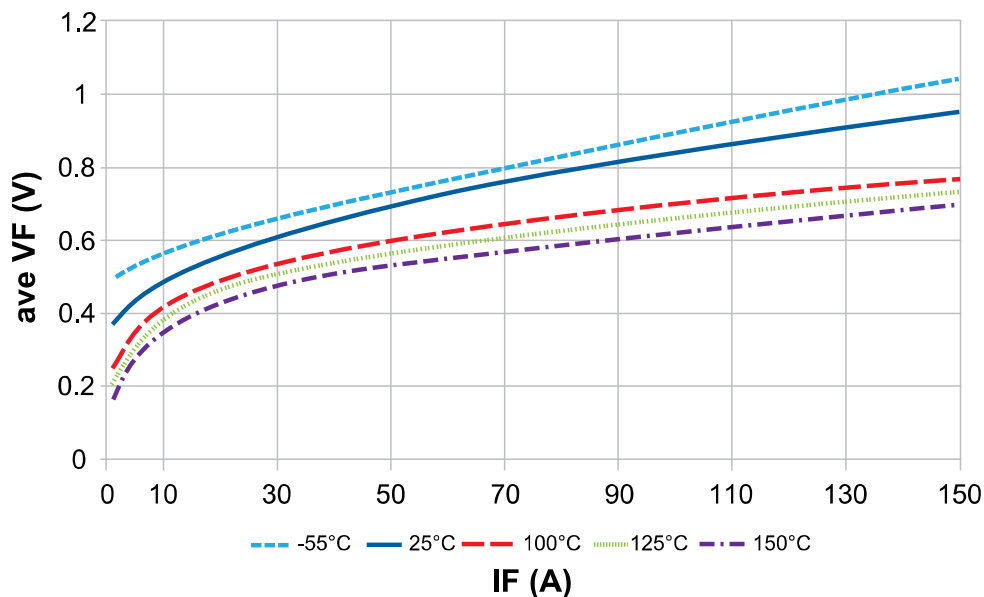
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SED120LB100, SED120LE100, and SED120LT100

ELECTRICAL CHARACTERISTICS ^{3/}	Symbol	Maximum Value	Units
Instantaneous Forward Voltage Drop ($T_A=25^{\circ}\text{C}$, 300 μsec pulse)	$I_F = 40\text{ A}$ $I_F = 120\text{ A}$ V_{F1} V_{F2}	0.71 0.95	V_{DC}
Instantaneous Forward Voltage Drop (300 μsec pulse)	$T_A=125^{\circ}\text{C}$, $I_F = 120\text{ A}$ V_{F3}	0.78	V_{DC}
Reverse Leakage Current (Rated V_R , $T_A = 25^{\circ}\text{C}$, 300 μsec pulse minimum)	I_{R1}	5.0	mA
Reverse Leakage Current (Rated V_R , $T_A = 125^{\circ}\text{C}$, 300 μsec pulse minimum)	I_{R2}	100	mA
Junction Capacitance ($V_R = 5\text{V}$, $f = 1\text{MHz}$, $T_A = 25^{\circ}\text{C}$)	C_J	3200	pF

SED120Lx100

Ave VF (V) vs. IF (A)



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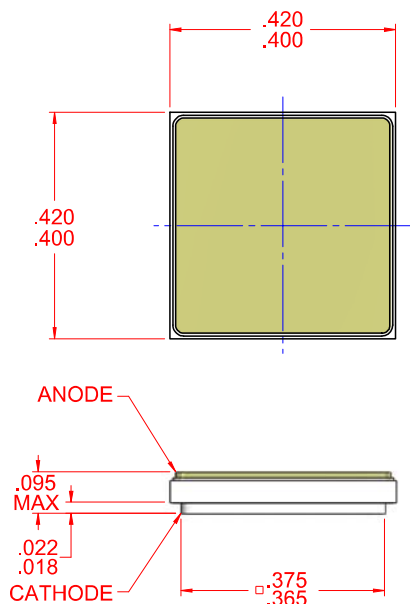
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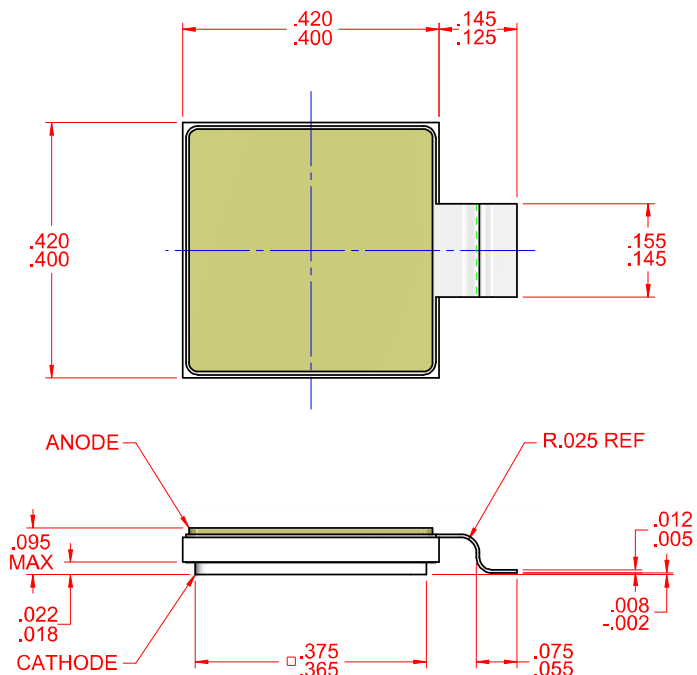
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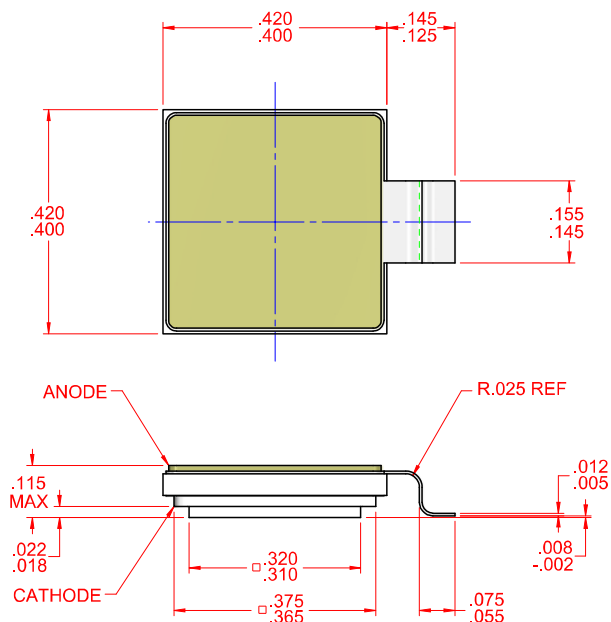
Case Outline: SEDPACK 3



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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