



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

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

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

Designer's Data Sheet

Part Number / Ordering Information ^{1/}

SED100

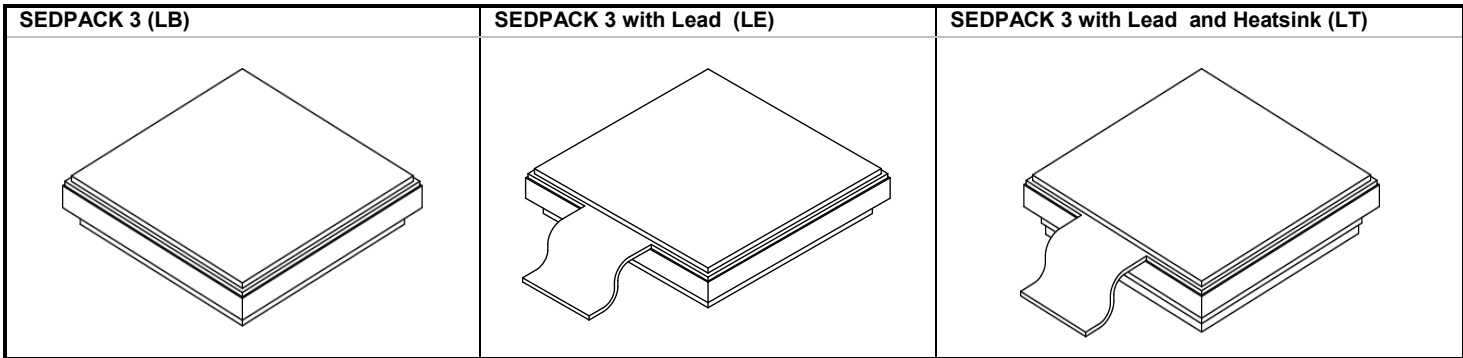
Screening^{2/} = Not Screened
 TX = TX Level
 TXV = TXV
 S = S Level

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^{2/} - Consult Factory

MAXIMUM RATINGS ^{3/}		Symbol	Value	Units
Peak Repetitive Reverse and DC Blocking Voltage	SED100LE150 SED100LE200	V_{RRM} V_{RWM} V_R	150 200	Volts
Average Rectified Forward Current (Resistive Load, 60 Hz, Sine Wave, $T_C = 100^\circ\text{C}$)		I_O	100	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	°C
Maximum Thermal Resistance (Junction to Case)		$R_{\theta JC}$	0.3	°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.



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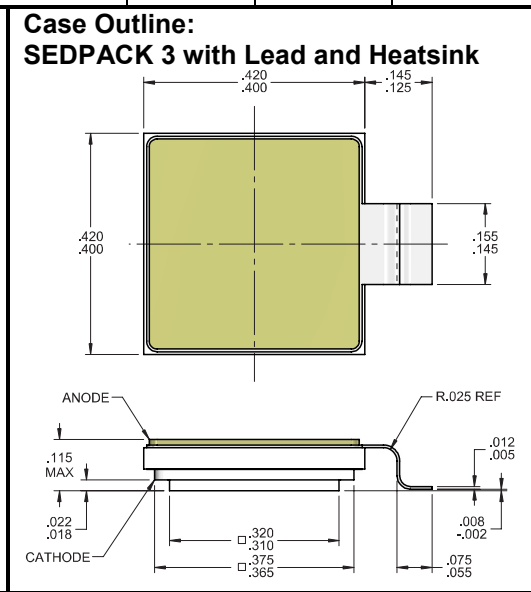
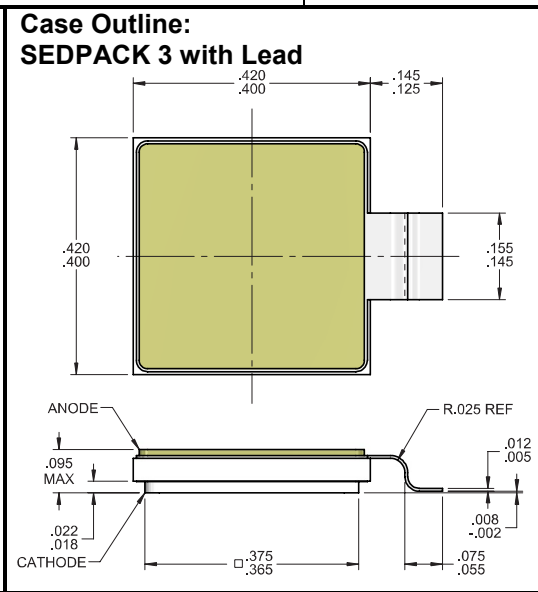
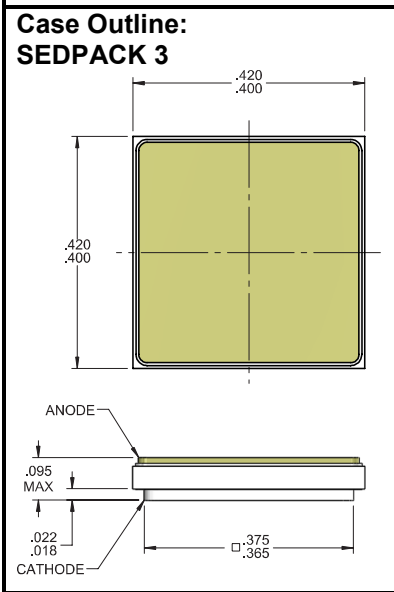
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SED100LB/LE/LT150
SED100LB/LE/LT200

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

NOTES:
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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



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

DATA SHEET #: SH0081C

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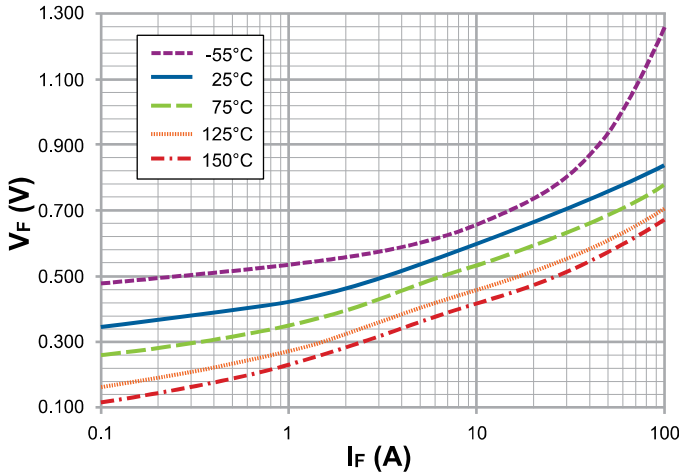


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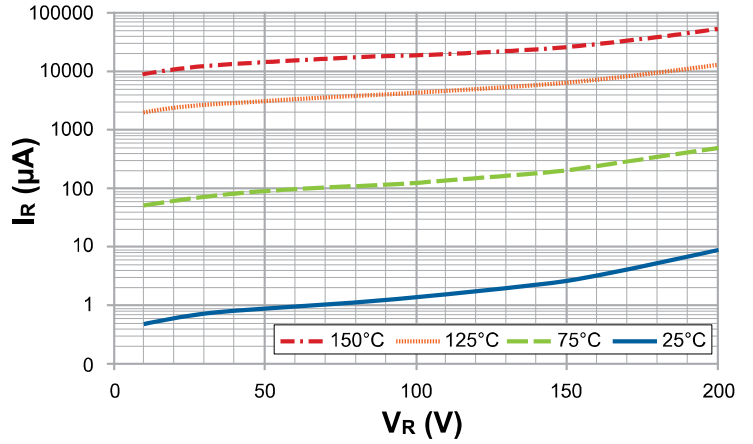
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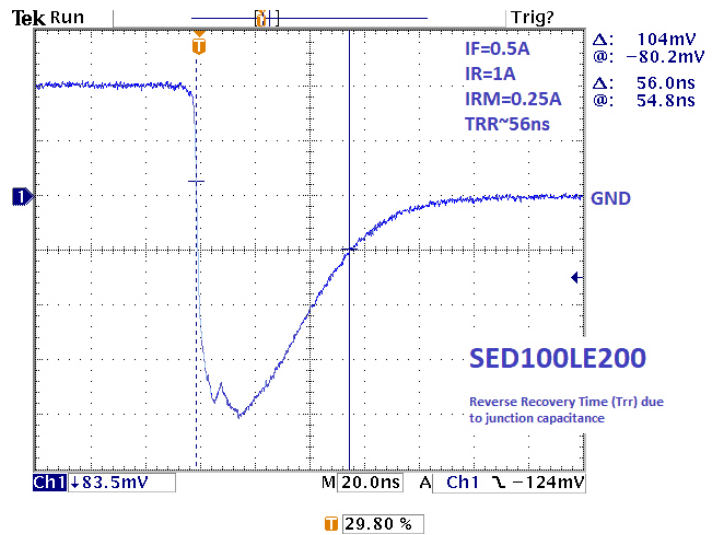
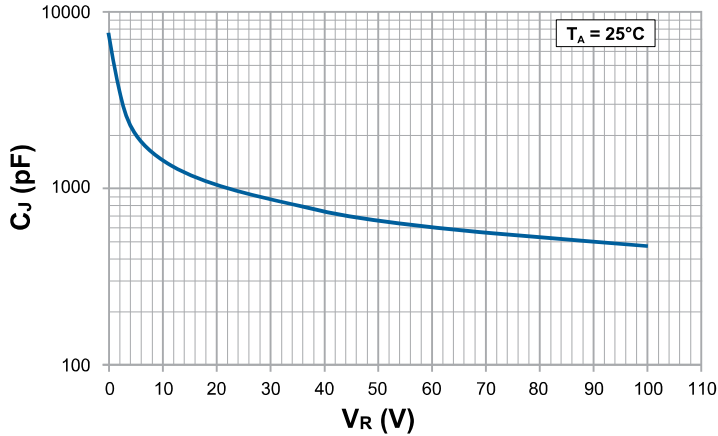
SED100LE200
 Typical V_F vs I_F vs T_J



SED100LE200
 Typical I_R vs V_R vs T_J



SED100LE200
 Typical C_J vs V_R



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