



Solid State Devices, Inc.

14701 Firestone Blvd * La Mirada, CA 90638-5223

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

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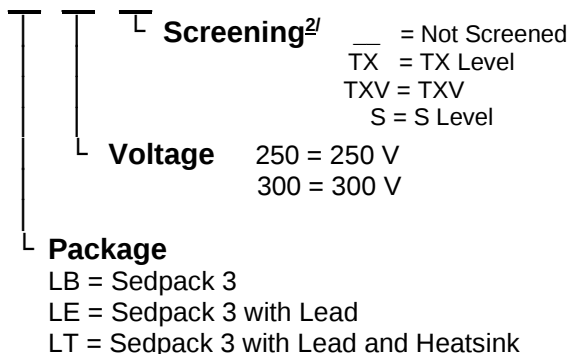
SED100LB/LE/LT250 SED100LB/LE/LT300

100 A, 250 - 300 V
Low Leakage, High Voltage
Schottky Rectifier

Designer's Data Sheet

Part Number / Ordering Information ^{1/}

SED100



FEATURES:

- 250 and 300 Volt Schottky Rectifier
- Average Output Current: 100 Amps
- Low Reverse Leakage: 50 μ A max
- Low Forward Voltage Drop: 0.93 V max
- 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

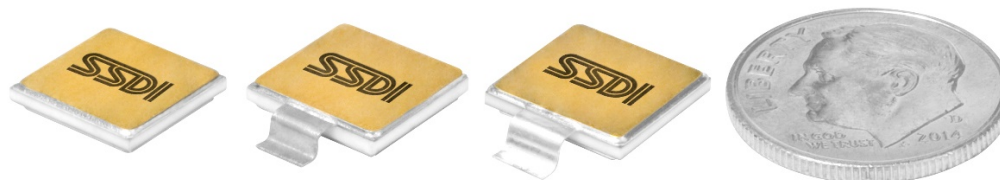
MAXIMUM RATINGS ^{3/}	Symbol	Value	Unit
Peak Repetitive Reverse and DC Blocking Voltage SED100LE250 SED100LE300	V_{RRM} V_{RWM} V_R	250 300	V
Average Rectified Forward Current (Resistive Load, 60 Hz, Sine Wave, $T_c = 100^\circ\text{C}$)	I_o	100	A
Peak Surge Current (8.3 ms pulse, half sine wave superimposed on I_o , allow Junction to reach equilibrium between pulses, $T_A = 25^\circ\text{C}$)	I_{FSM}	1000	A
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)

**Dime used for size reference*



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 #: SH0127C

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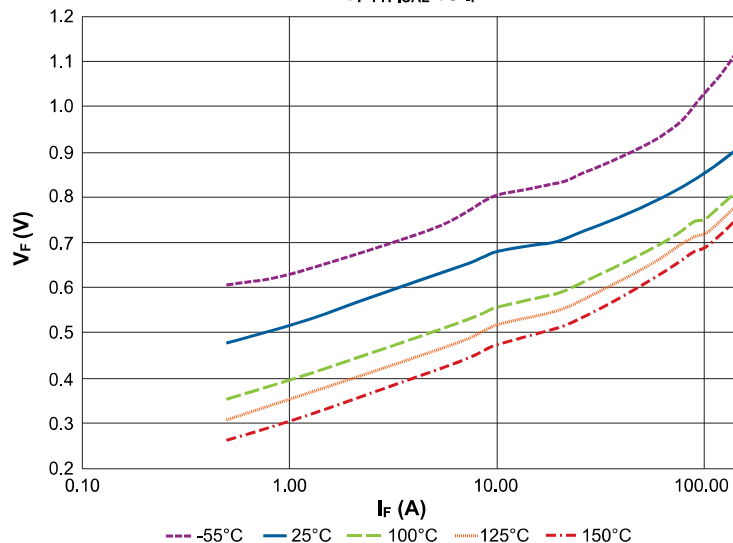
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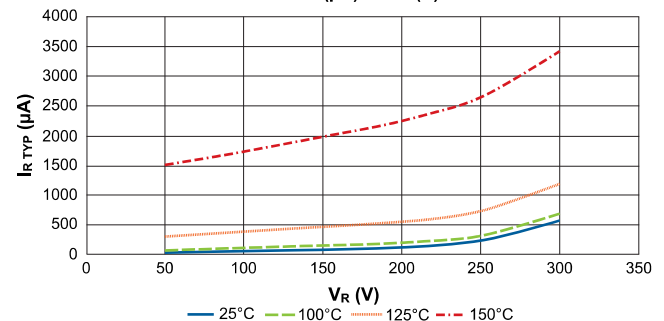
SED100LB/LE/LT250 SED100LB/LE/LT300

ELECTRICAL CHARACTERISTICS ^{3/}		Symbol	Typical	Max	Unit
Instantaneous Forward Voltage Drop (T _A = 25°C, 300 µsec pulse)	I _F = 25 A	V _{F1}	0.72	-	V _{DC}
	I _F = 50 A	V _{F2}	0.78	0.85	
	I _F = 75 A	V _{F3}	0.82	-	
	I _F = 100 A	V _{F4}	0.86	0.93	
Instantaneous Forward Voltage Drop (T _A = 125°C, 300 µsec pulse)	I _F = 25 A	V _{F5}	0.58	-	V _{DC}
	I _F = 50 A	V _{F6}	0.64	0.70	
	I _F = 75 A	V _{F7}	0.69	-	
	I _F = 100 A	V _{F8}	0.72	0.79	
Instantaneous Forward Voltage Drop (T _A = 150°C, 300 µsec pulse)	I _F = 25 A	V _{F9}	0.54	-	V _{DC}
	I _F = 50 A	V _{F10}	0.61	-	
	I _F = 75 A	V _{F11}	0.56	-	
	I _F = 100 A	V _{F12}	0.69	-	
Instantaneous Forward Voltage Drop (T _A = -55°C, 300 µsec pulse)	I _F = 25 A	V _{F9}	0.85	-	V _{DC}
	I _F = 50 A	V _{F10}	0.92	-	
	I _F = 75 A	V _{F11}	0.97	-	
	I _F = 100 A	V _{F12}	1.03	-	
Reverse Leakage Current (Rated V _R , 300 µsec pulse minimum)	T _A = 25°C	I _{R1}	0.01	50	µA
	T _A = 100°C	I _{R2}	0.15	-	mA
	T _A = 125°C	I _{R3}	0.75	10	mA
	T _A = 150°C	I _{R4}	4	-	mA
Junction Capacitance (f = 1 MHz, T _A = 25°C)	V _R = 5 V	C _J	1300	-	pF
	V _R = 10 V		925	1200	

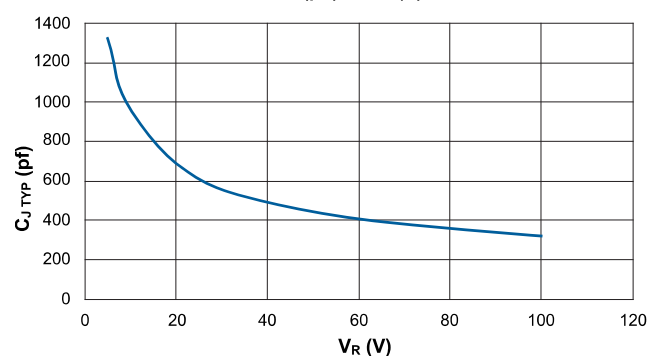
SED100Lx300
V_F TYPICAL VS I_F



SED100Lx300
I_R TYPICAL (µA) vs V_R (V)



SED100Lx300
C_J TYPICAL (pF) vs V_R (V), 25°C



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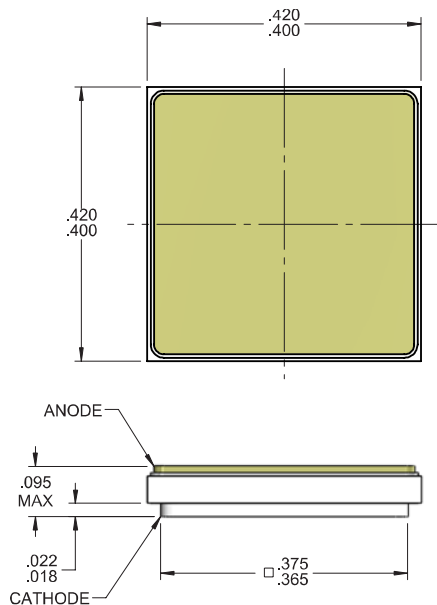


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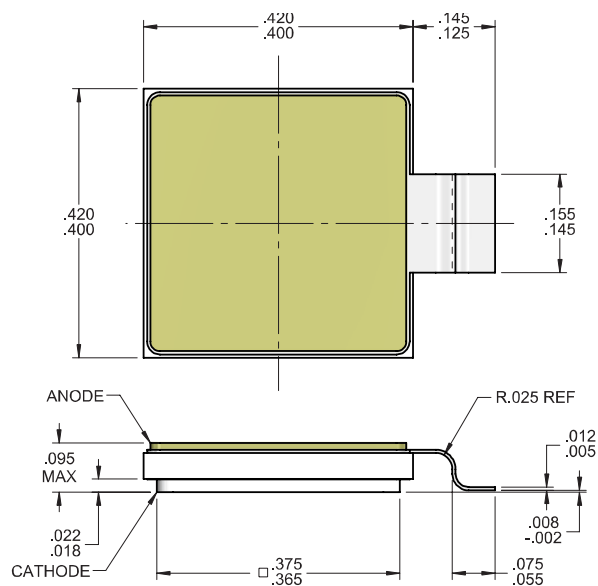
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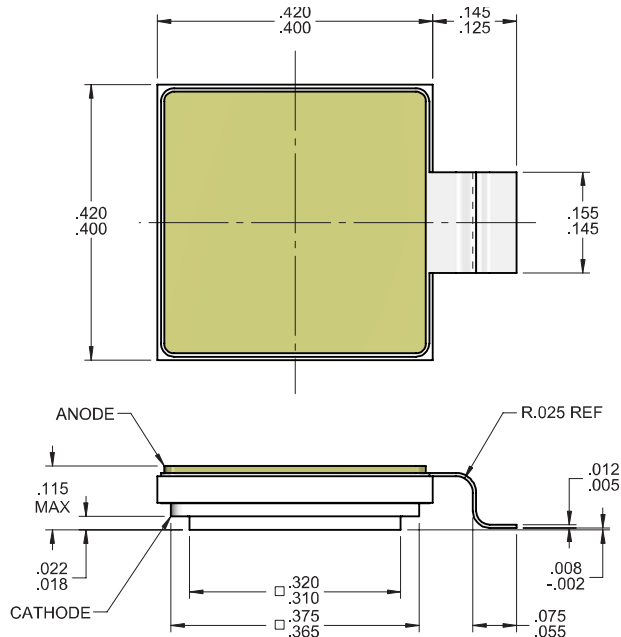
SEDPACK 3 (LB)



SEDPACK 3 with Lead (LE)



SEDPACK 3 with Lead & Heatsink (LT)



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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