ULTRA-SMALL LEADLESS SURFACE MOUNT SWITCHING DIODE

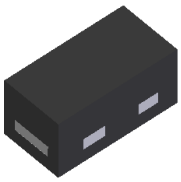
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Features

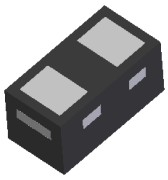
- Ultra-Small Leadless Surface Mount Package (0.6 x 0.3mm)
- Ultra-Low Profile Package (0.3mm)
- Fast Switching Speed
- Low Forward Voltage
- Fast Reverse Recovery
- Low Capacitance
- **Lead Free By Design/RoHS Compliant (Note 1)**
- **"Green" Device (Note 2)**

Mechanical Data

- Case: X3-DFN0603-2
- Case Material: Molded Plastic, “Green” Molding Compound. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020
- Terminal Connections: Cathode Bar
- Terminals: Finish – Matte Tin Finish over Copper Leadframe (Lead Free Plating). Solderable per MIL-STD-202, Method 208
- Weight: 0.0002 grams (Approximate)



Top View



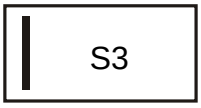
Bottom View

Ordering Information (Note 3)

Part Number	Case	Packaging
1SS361LP3-7	X3-DFN0603-2	10,000/Tape & Reel

Notes:
1. No purposefully added lead.
2. Diodes Inc.'s "Green" policy can be found on our website at http://www.diodes.com.
3. For packaging details, go to our website at http://www.diodes.com.

Marking Information



S3 = Product Type Marking Code
Bar Denotes Cathode Side

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Maximum Ratings @T_A = 25°C unless otherwise specified

Characteristic	Symbol	Value	Unit
Non-Repetitive Peak Reverse Voltage	V_{RM}	85	V
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	80	V
RMS Reverse Voltage	$V_{R(RMS)}$	57	V
Forward Continuous Current	I_{FM}	300	mA
Average Rectified Output Current	I_O	100	mA
Non-Repetitive Peak Forward Surge Current @ t = 1.0µs	I_{FSM}	2.0	A

Thermal Characteristics

Characteristic	Symbol	Value	Unit
Power Dissipation (Note 4)	P_D	250	mW
Thermal Resistance Junction to Ambient Air (Note 4)	$R_{\theta JA}$	500	°C/W
Operating and Storage Temperature Range	T_J, T_{STG}	-65 to +150	°C

Electrical Characteristics @T_A = 25°C unless otherwise specified

Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Breakdown Voltage (Note 5)	$V_{(BR)R}$	80	—	—	V	I_R = 100µA
Forward Voltage	V_F	— — —	0.61 0.75 0.95	— — 1.23	V	I_F = 1.0mA I_F = 10mA I_F = 100mA
Leakage Current (Note 5)	I_R	— —	— —	0.5 1.0	µA µA	V_R = 30V V_R = 80V
Total Capacitance	C_T	—	0.37	3.0	pF	V_R = 0, f = 1.0MHz
Reverse Recovery Time	t_{rr}	—	1.7	4.0	ns	I_F = I_R = 10mA, I_{rr} = 0.1 x I_R, R_L = 100Ω

Notes: 4. Part mounted on FR-4 PC board with recommended pad layout, which can be found on our website at http://www.diodes.com.
5. Short duration pulse test used to minimize self-heating effect.

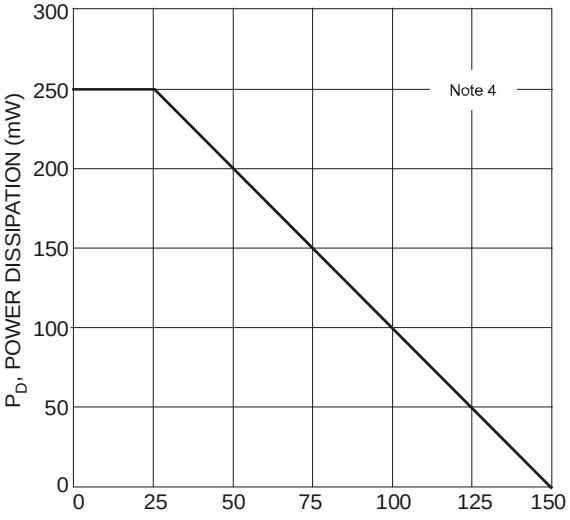


Fig. 1 Power Derating Curve, Total Package

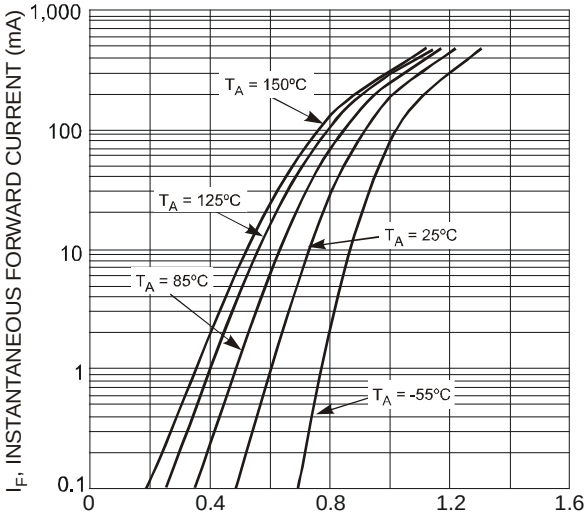


Fig. 2 Typical Forward Characteristics

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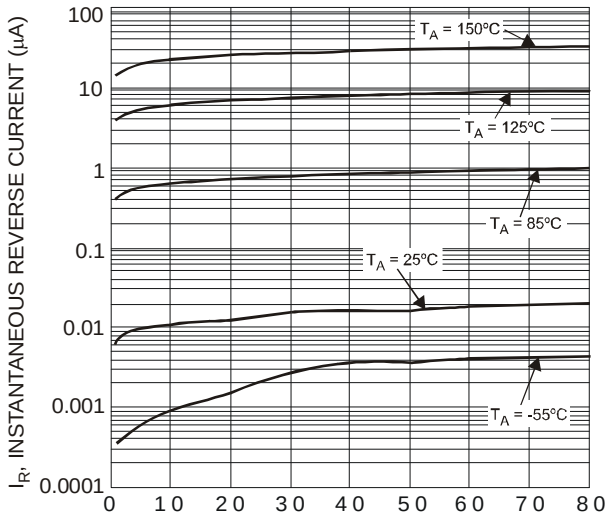


Fig. 3 Typical Reverse Characteristics

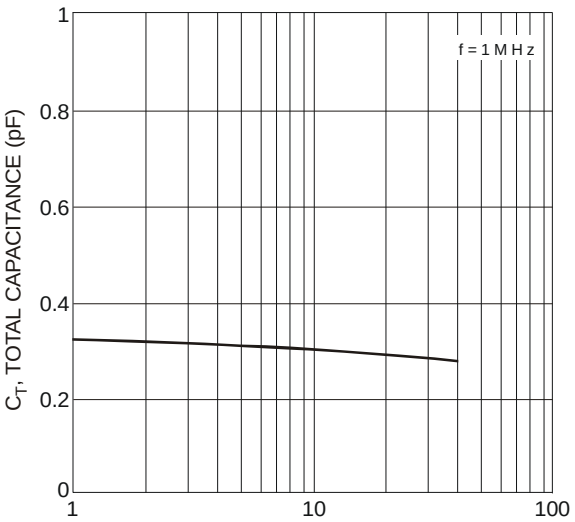
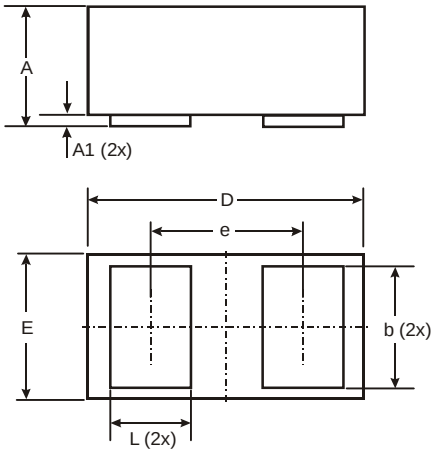


Fig. 4 Total Capacitance vs. Reverse Voltage

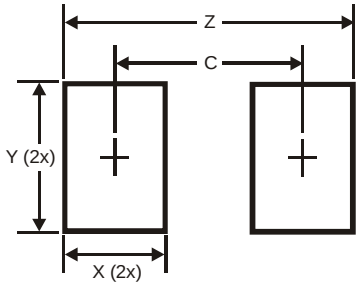
Package Outline Dimensions



Bottom View

X3-DFN0603-2			
Dim	**Min**	**Max**	**Typ**
A	0.27	0.35	0.30
A1	0.00	0.03	0.02
b	0.19	0.29	0.24
D	0.595	0.645	0.62
E	0.295	0.345	0.32
e	-	-	0.355
L	0.14	0.24	0.19
All Dimensions in mm			

Suggested Pad Layout



Dimensions	Value (in mm)
C	0.355
X	0.230
Y	0.300
Z	0.610

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