



ULTRA-SMALL LEADLESS SURFACE MOUNT SWITCHING DIODE

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
- Totally Lead-Free & Fully RoHS Compliant (Notes 1 & 2)
- Halogen and Antimony Free. "Green" Device (Note 3)

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 (3)
- Weight: 0.0002 grams (Approximate)



Top View



Bottom View

Ordering Information (Note 4)

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

1. No purposely added lead. Fully EU Directive 2002/95/EC (RoHS) & 2011/65/EU (RoHS 2) compliant.

 See http://www.diodes.com/quality/lead_free.html for more information about Diodes Incorporated's definitions of Halogen- and Antimony-free, "Green" and Lead-free.

Notes:

3. Halogen - and Antimony-free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.</p>

4. For packaging details, go to our website at http://www.diodes.com.

Marking Information

S3

S3 = Product Type Marking Code Bar Denotes Cathode Side



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	IFM	300	mA
Average Rectified Output Current	lo	100	mA
Non-Repetitive Peak Forward Surge Current @ t = 1.0µs	I _{FSM}	2.0	А

Thermal Characteristics

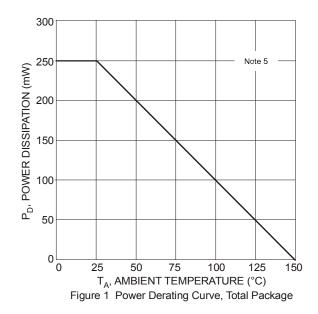
Characteristic	Symbol	Value	Unit
Power Dissipation (Note 5)	PD	250	mW
Thermal Resistance Junction to Ambient Air (Note 5)	$R_{ ext{ heta}JA}$	500	°C/W
Operating and Storage Temperature Range	TJ, TSTG	-65 to +150	°C

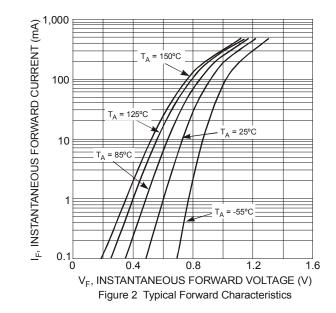
Electrical Characteristics (@T_A = +25°C, unless otherwise specified.)

Characteristic	Symbol	Min	Тур	Max	Unit	Test Condition
Reverse Breakdown Voltage (Note 6)	V _{(BR)R}	80	_		V	I _R = 100μA
		_	0.61	_		I _F = 1.0mA
Forward Voltage	VF	_	0.75		V	I _F = 10mA
		_	0.95	1.23		I _F = 100mA
Leakage Current (Note 6)	1-	_	_	0.5	μA	V _R = 30V
Leakage Current (Note 6)	I _R		—	1.0	μA	V _R = 80V
Total Capacitance	CT	_	0.37	3.0	pF	V _R = 0, f = 1.0MHz
Reverse Recovery Time	+	—	1.7	7 4.0		I _F = I _R = 10mA,
	t _{rr}					$I_{rr} = 0.1 \text{ x } I_R, R_L = 100\Omega$

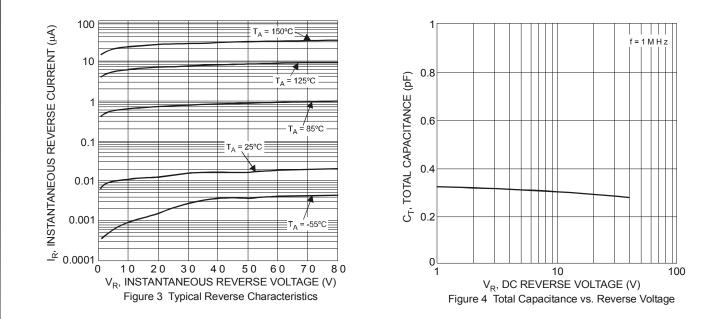
Notes:

5. Part mounted on FR-4 PC board with recommended pad layout, which can be found on our website at http://www.diodes.com. 6. Short duration pulse test used to minimize self-heating effect.



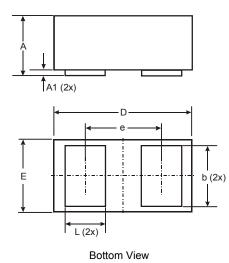






Package Outline Dimensions

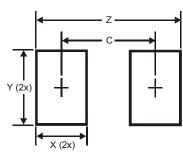
Please see AP02002 at http://www.diodes.com/datasheets/ap02002.pdf for latest version.



X3-DFN0603-2					
Dim	Min	Max	Тур		
Α	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		
е	-	-	0.355		
L	0.14	0.24	0.19		
All Dimensions in mm					

Suggested Pad Layout

Please see AP02001 at http://www.diodes.com/datasheets/ap02001.pdf for the latest version.



Dimensions	Value (in mm)
С	0.380
Х	0.230
Y	0.300
Z	0.610



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