



SDMP0340LT/LST/LCT/LAT

SURFACE MOUNT SCHOTTKY BARRIER DIODE

Features

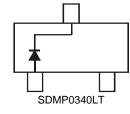
- Low Forward Voltage Drop
- Guard Ring Die Construction for Transient Protection
- Ideal for Low Logic Level Applications
- Low Capacitance
- Lead Free/RoHS Compliant (Note 3)
- "Green" Device (Note 4 and 5)

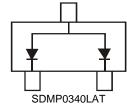
Mechanical Data

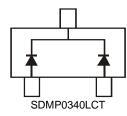
- Case: SOT-523
- Case Material: Molded Plastic. UL Flammability Classification Rating: 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020D
- Terminals: Solderable per MIL-STD-202, Method 208
- Lead Free Plating (Matte Tin Finish annealed over Alloy 42 leadframe).
- · Polarity: See Diagrams Below
- Marking Information: See Page 3
- Ordering Information: See Page 3
- Weight: 0.002 grams (approximate)

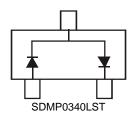


Top View









Maximum Ratings @T_A = 25°C unless otherwise specified

Characteristic		Symbol	Value	Unit	
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage		V _{RRM} V _R WM V _R	40	V	
RMS Reverse Voltage		V _{R(RMS)}	28	V	
Forward Continuous Current (N	Note 1)	I _{FM}	30	mA	
Non-Repetitive Peak Forward Surge Current @8.3ms Single half sine-wave superimposed on rated load		I _{FSM}	200	mA	

Thermal Characteristics

Characteristic		Symbol	Value	Unit	
Power Dissipation	(Note 1)	P_{D}	150	mW	
Thermal Resistance, Junction to Ambient	(Note 1)	$R_{ hetaJA}$	833	°C/W	
Operating and Storage Temperature Range		T _J , T _{STG}	-40 to +125	°C	

Electrical Characteristics @T_A = 25°C unless otherwise specified

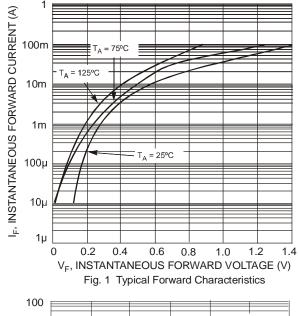
Characteristic	Symbol	Min	Тур	Max	Unit	Test Condition	
Reverse Breakdown Voltage	(Note 2)	$V_{(BR)R}$	40	_	_	V	$I_{R} = 10uA$
Forward Voltage Drop		V_{F}	_	290	370	mV	I _F = 1mA
Leakage Current	(Note 2)	I _R	_	_	1.0	μА	V _R = 10V
Total Capacitance		Ст	_	2	_	pF	V _R = 1V, f = 1.0 MHz

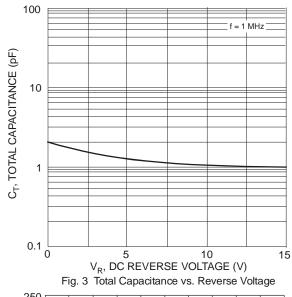
Notes:

- Device mounted on FR-4 PC board with recommended pad layout, which can be found on our website at http://www.diodes.com/datasheets/ap02001.pdf.
- 2. Short duration pulse test used to minimize self-heating effect.
- No purposefully added lead.
- 4. Diodes Inc.'s "Green" policy can be found on our website at http://www.diodes.com/products/lead_free/index.php.
- 5. Product manufactured with Date Code UO (week 40, 2007) and newer are built with Green Molding Compound. Product manufactured prior to Date Code UO are built with Non-Green Molding Compound and may contain Halogens or Sb2O3 Fire Retardants.









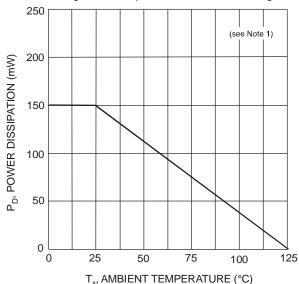


Fig. 5 Power Derating Curve

100μ IR, INSTANTANEOUS REVERSE CURRENT (A) T_A = 125°C 10µ 1μ 100n T_A = 25°C 10n 1n 0 10 15 20 30 35 V_R, INSTANTANEOUS REVERSE VOLTAGE (V) Fig. 2 Typical Reverse Characteristics

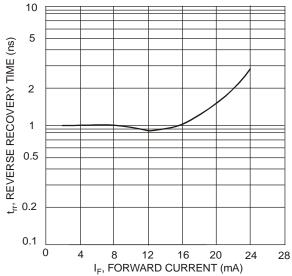


Fig. 4 Typical Reverse Recovery Time Characteristics

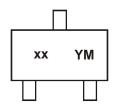


Ordering Information (Note 6)

Device	Packaging	Shipping
SDMP0340LT-7-F	SOT-523	3000/Tape & Reel
SDMP0340LST-7-F	SOT-523	3000/Tape & Reel
SDMP0340LCT-7-F	SOT-523	3000/Tape & Reel
SDMP0340LAT-7-F	SOT-523	3000/Tape & Reel

Notes: 6. For packaging details, go to our website at http://www.diodes.com/datasheets/ap02007.pdf.

Marking Information



xx = Product Type Marking Code

SM = SDMP0340LT

SQ = SDMP0340LAT

SP = SDMP0340LCT

SN = SDMP0340LST YM = Date Code Marking

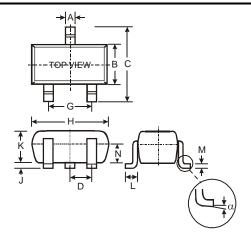
Y = Year (ex: N = 2002)

M = Month (ex: 9 = September)

Date Code Kev

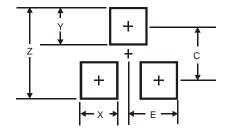
Year	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Code	М	N	Р	R	S	Т	U	V	W	Х	Υ	Z	Α	В	С
Month	Jan	Fel	b I	Mar	Apr	May	Ju	n	Jul	Aug	Sep	Ос	t I	Nov	Dec
Code	1	2		3	4	5	6		7	8	9	0		N	D

Package Outline Dimensions



SOT-523							
Dim	Min	Max	Тур				
Α	0.15	0.30	0.22				
В	0.75	0.85	0.80				
С	1.45	1.75	1.60				
D	_	_	0.50				
G	0.90	1.10	1.00				
Н	1.50	1.70	1.60				
J	0.00	0.10	0.05				
K	0.60	0.80	0.75				
L	0.10	0.30	0.22				
M	0.10	0.20	0.12				
N	0.45	0.65	0.50				
α	0°	8°	_				
All	All Dimensions in mm						

Suggested Pad Layout



Dimensions	Value (in mm)
Z	1.8
Х	0.4
Y	0.51
С	1.3
E	0.7





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