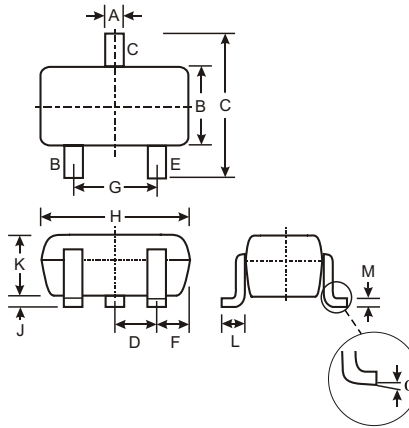


Features

- Low Forward Voltage Drop
- Fast Switching
- Ultra-Small Surface Mount Package
- PN Junction Guard Ring for Transient and ESD Protection
- **Available in Lead Free/RoHS Compliant Version (Note 3)**

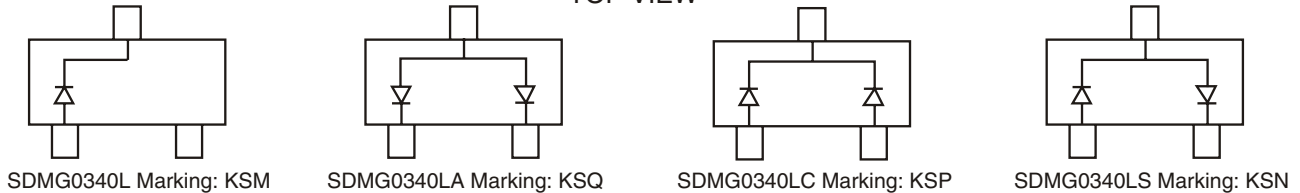
Mechanical Data

- Case: SOT-323
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020C
- Terminals: Solderable per MIL-STD-202, Method 208
- Also Available in Lead Free Plating (Matte Tin Finish annealed over Alloy 42 leadframe). Please See Ordering Information, Note 5, on Page 3
- Polarity: See Diagrams Below
- Marking: Date Code and Marking Code (See Diagrams & Page 3)
- Ordering Information (See Page 3)
- Weight: 0.006 grams (approximate)



SOT-323		
Dim	Min	Max
A	0.25	0.40
B	1.15	1.35
C	2.00	2.20
D	0.65 Nominal	
E	0.30	0.40
G	1.20	1.40
H	1.80	2.20
J	0.0	0.10
K	0.90	1.00
L	0.25	0.40
M	0.10	0.18
α	0°	8°
All Dimensions in mm		

TOP VIEW



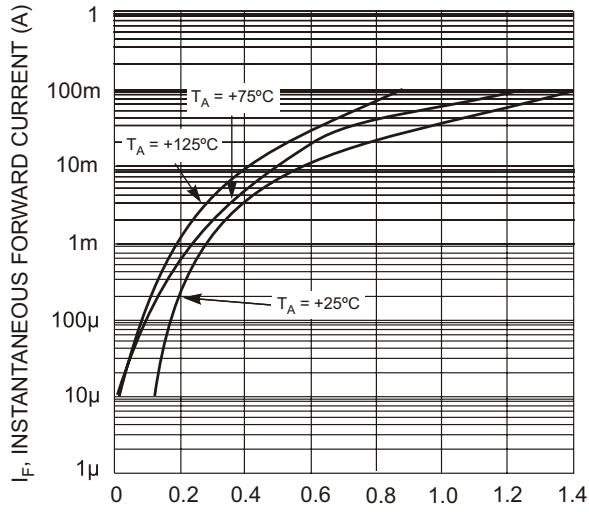
Maximum Ratings @ T_A = 25°C unless otherwise specified

Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V _{RRM} V _{RWM} V _R	40	V
RMS Reverse Voltage	V _{R(RMS)}	28	V
Forward Continuous Current (Note 1)	I _{FM}	30	mA
Non-Repetitive Peak Forward Surge Current @ t = 8.3ms	I _{FSM}	200	mA
Power Dissipation (Note 1)	P _d	200	mW
Thermal Resistance Junction to Ambient Air (Note 1)	R _{θJA}	625	°C/W
Operating Temperature Range	T _j	-40 to +125	°C
Storage Temperature Range	T _{STG}	-40 to +125	°C

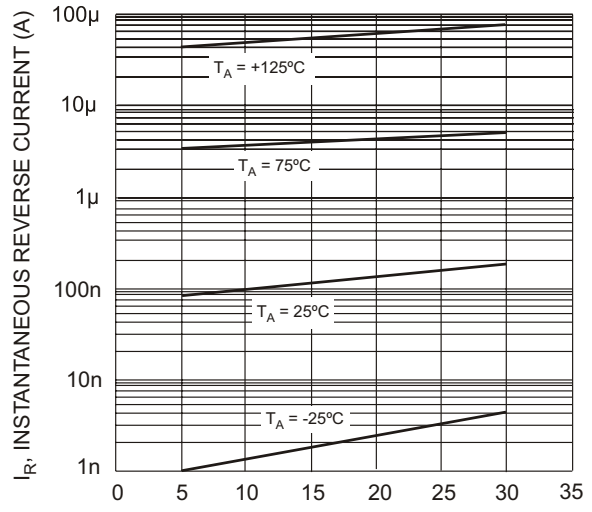
Electrical Characteristics @ T_A = 25°C unless otherwise specified

Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Breakdown Voltage (Note 2)	V _{(BR)R}	40	—	—	V	I _R = 10μA
Forward Voltage (Note 2)	V _F	—	295	370	mV	I _F = 1.0mA
Leakage Current (Note 2)	I _R	—	150	1000	nA	V _R = 10V
Total Capacitance	C _T	—	2.0	—	pF	V _R = 1V, f = 1.0MHz

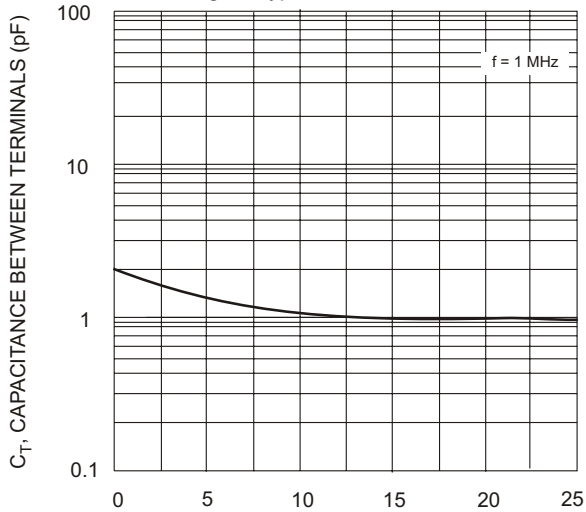
- Notes:
1. Device mounted on FR-4 PCB, 1 inch x 0.85 inch x 0.062 inch; pad layout as shown on Diodes Inc. suggested pad layout document AP02001, which can be found on our website at <http://www.diodes.com/datasheets/ap02001.pdf>.
 2. Short duration test pulse used to minimize self-heating effect.
 3. No purposefully added lead.



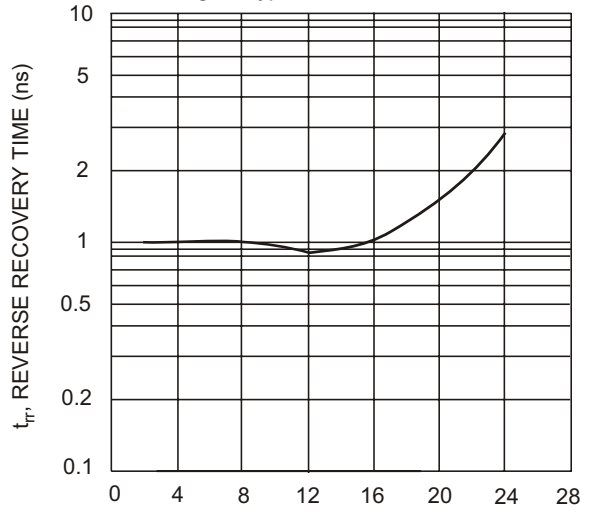
V_F , INSTANTANEOUS FORWARD VOLTAGE (V)
Fig. 1 Typical Forward Characteristics



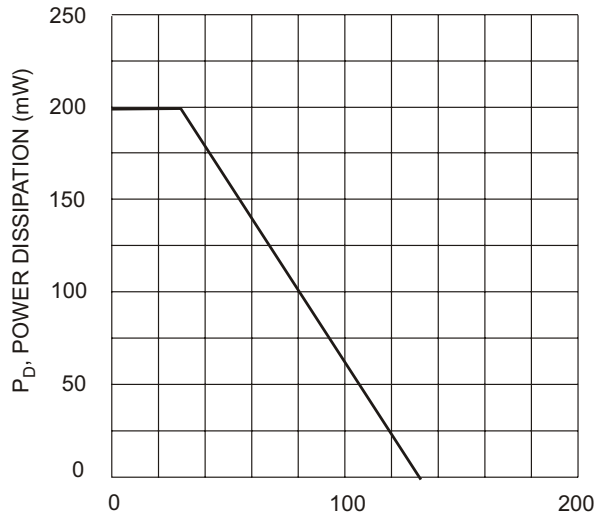
V_R , INSTANTANEOUS REVERSE VOLTAGE (V)
Fig. 2 Typical Reverse Characteristics



C_T , CAPACITANCE BETWEEN TERMINALS (pF)
Fig. 3 Typical Capacitance Between Terminals Characteristics



t_{rr} , REVERSE RECOVERY TIME (ns)
Fig. 4 Typical Reverse Recovery Time Characteristics



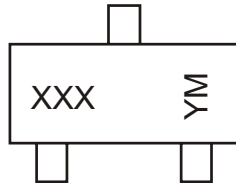
P_D , POWER DISSIPATION (mW)
 T_A , AMBIENT TEMPERATURE (°C)
Fig. 5 Power Derating Curve, Total Package

Ordering Information (Note 4)

Device	Packaging	Shipping
SDMG0340L-7	SOT-323	3000/Tape & Reel
SDMG0340LA-7	SOT-323	3000/Tape & Reel
SDMG0340LC-7	SOT-323	3000/Tape & Reel
SDMG0340LS-7	SOT-323	3000/Tape & Reel

- Notes: 4. For Packaging Details, go to our website at <http://www.diodes.com/datasheets/ap02007.pdf>.
 5. For Lead Free/RoHS Compliant version part numbers, please add "-F" suffix to the part numbers above. Example: SDMG0340LS-7-F.

Marking Information



XXX = Product Type Marking Code (See Page 1)
 YM = Date Code Marking
 Y = Year ex: N = 2002
 M = Month ex: 9 = September

Date Code Key

Year	2001	2002	2003	2004	2005	2006	2007	2008	2009
Code	M	N	P	R	S	T	U	V	W

Month	Jan	Feb	March	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Code	1	2	3	4	5	6	7	8	9	O	N	D