Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

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Contact us

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Technical Data
Data Sheet N1509, Rev. A

UA1A-UA1M
Ultrafast Avalanche Diodes

SMA

Features

- Ideally Suited for Automatic Assembly
- Low Forward Overload Drop, High Efficiency
- Low Power Loss
- Super-Fast Recovery Time
- Plastic Material has UL Classification 94V-O
- This is a Pb − Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

Circuit Diagram

Mechanical Data

- Case: Low Profile Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band or Cathode Notch
- Weight: 0.06 grams(approx)

Maximum Ratings and Electrical Characteristics @T_A=25°C unless otherwise specified

Characteristic	Symbol	UA1A	UA1B	UA1D	UA1G	UA1J	UA1K	UA1M	Units
Peak Repetitive Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Surge Peak Reverse Voltage	V_{RSM}	50	100	200	400	600	800	1000	
Max. Average Forward Current @T_L =100°C	I_F	1.0							A
Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30							A
Maximum Forward voltage @IF =1.0A	V_F	1			1.25	1.7			V
Maximum Leakage Current @T_A = 25°C	I_R	3							μA
Reverse Recovery Time (Note 1)	Trr	50				75			ns
Max. thermal resistance junction to ambient (Note 2)	$R_{\Theta JA}$	70							K/W
Non-Repetitive Avalanche Energy(Note 3)	E_{AS}	20							mJ
Operating Junction and Storage Temperature Range	T_J,T_{STG}	-55 to +150							°C

Note: 1. Measured with I_F=0.5A, I_R=1.0A, I_{rr}=0.25A
2. Mounted on P.C. Board with 8.0mm² lead area
3. T_J = 25°C, I_{AS}=1.0mA, L=285mH

Technical Data
Data Sheet N1509, Rev. A

Ratings and Characteristics Curves

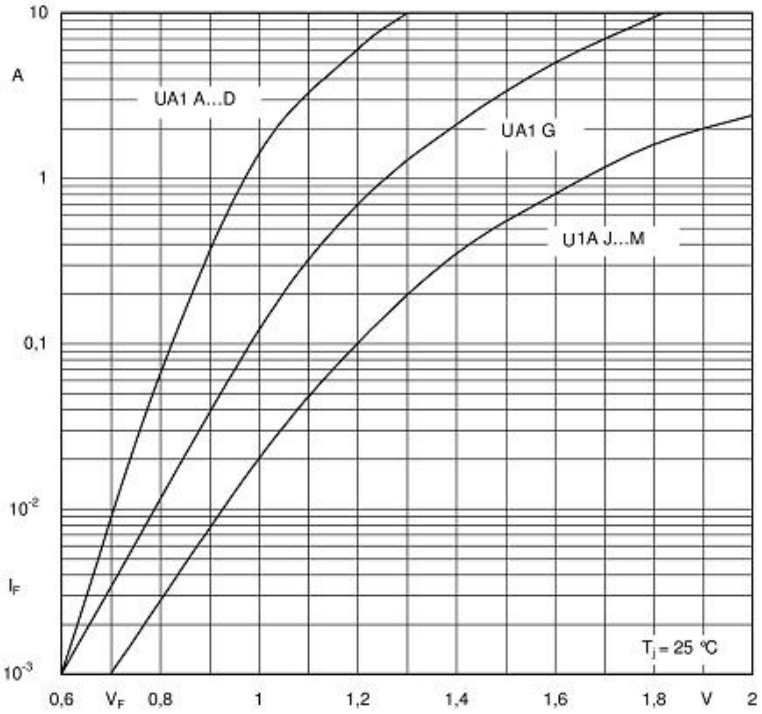


Fig. 1 Forward characteristics (typical values)

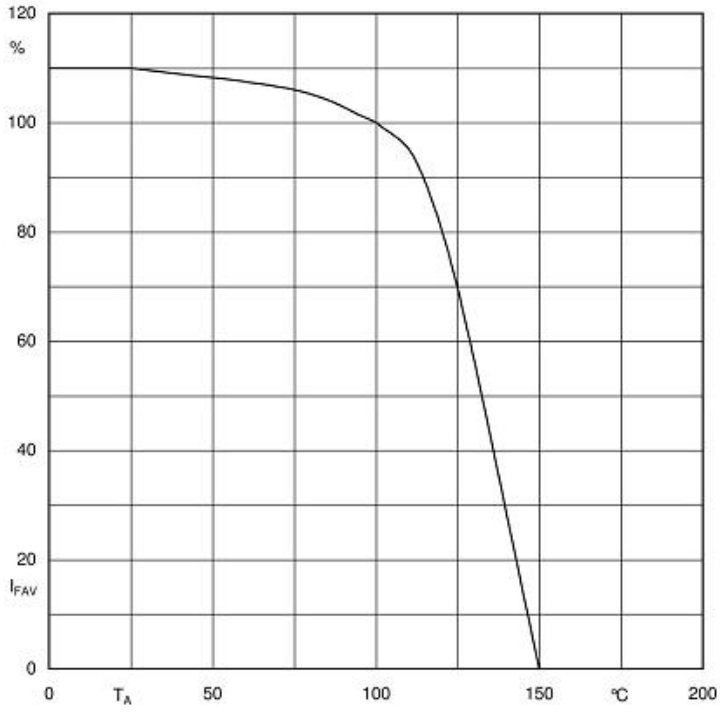


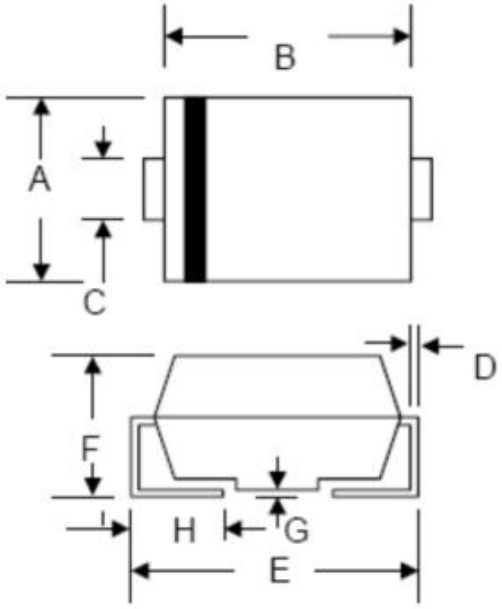
Fig. 2 Rated forward current vs. temp. of the terminals[4])

UA1A-UA1M

Technical Data
Data Sheet N1509, Rev. A

RoHS

Mechanical Dimensions SMA



SYMBOL	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	2.40	2.84	0.094	0.112
B	3.99	4.75	0.157	0.187
C	1.05	1.70	0.041	0.067
D	0.15	0.51	0.006	0.020
E	4.80	5.66	0.189	0.223
F	1.90	2.95	0.075	0.116
G	0.05	0.203	0.002	0.008
H	0.76	1.52	0.030	0.600

Ordering Information

Device	Package	Shipping
UA1A-UA1M	SMA (Pb-Free)	5000pcs / reel

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

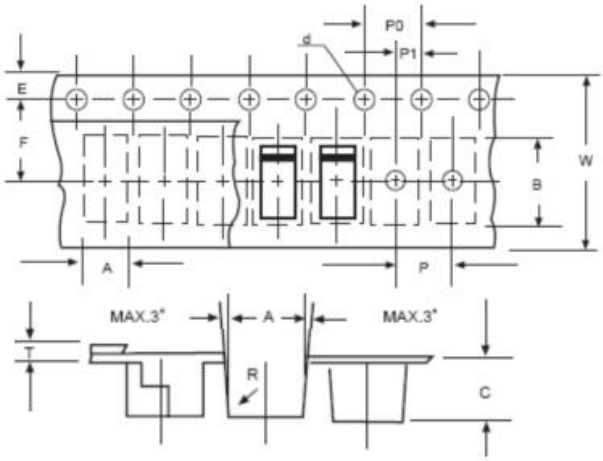
Marking Diagram

Where XXXXX is YYWWL

UA = Device Type
1 = Forward Current (1A)
A = Reverse Voltage (50V)
YY = Year
WW = Week
L = Lot Number

Cautions: Molding resin
Epoxy resin UL:94V-0

Carrier Tape Specification SMA



SYMBOL	Millimeters	
	Min.	Max.
A	2.97	3.17
B	5.70	5.90
C	2.32	2.52
d	1.40	1.60
E	1.40	1.60
F	5.60	5.70
P	3.90	4.10
P0	3.90	4.10
P1	1.90	2.10
T	0.25	0.35
W	11.80	12.20

Technical Data
Data Sheet N1509, Rev. A

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