Technical Data
Data Sheet N1509, Rev. -

Green Products

UA1A-UA1M
Ultrafast Avalanche Diodes

Features:

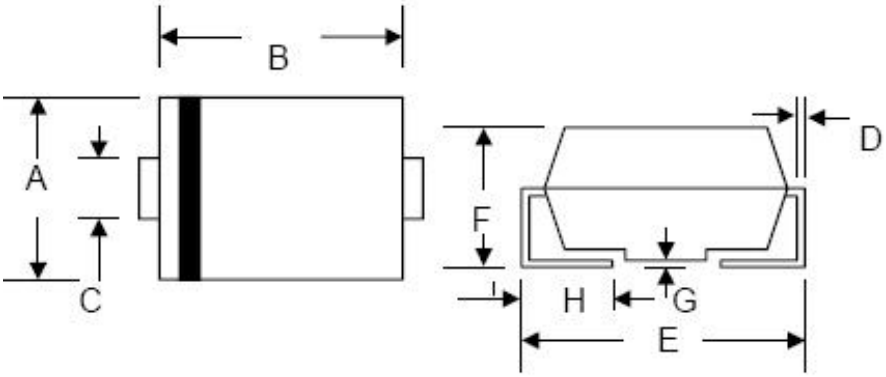
- Ideally Suited for Automatic Assembly
- Low Forward Overload Drop, High Efficiency
- Low Power Loss
- Super-Fast Recovery Time
- Plastic Material has UL Classification 94V-O
- This is a Pb − Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

Mechanical Data:

- Case: Low Profile Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band or Cathode Notch
- Marking: Type Number
- Weight: 0.11 grams(approx)

UA1A

Mechanical Dimensions: In mm(Inches)



	SMA/DO-214AC			
Dim.	Min.	Max.	Min.	Max.
A	2.18	2.90	0.086	0.114
B	3.99	4.60	0.157	0.181
C	1.29	1.70	0.508	0.067
D	0.152	0.305	0.006	0.012
E	4.70	5.31	0.185	0.209
F	1.70	2.50	0.067	0.098
G	0.051	0.203	0.002	0.008
H	0.76	1.55	0.030	0.610
	In mm		In inches	

SMA

MARKING, MOLDING RESIN
Marking for UA1A/B/C/D/E/G/J/K/M, 1st row UA1A/B/C/D/E/G/J/K/M, 2nd row YYWWL
Where YY is the manufacture year
WW is the manufacture week code
L is the wafer's Lot Number

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Ordering Information:

Device	Package	Shipping
UA1(A-M)	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.

Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified

Single Phase half wave 60Hz, resistive or inductive load. For capacitive load current derate by 20%.

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	V
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 @I_F =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
Case Style	SMA								

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

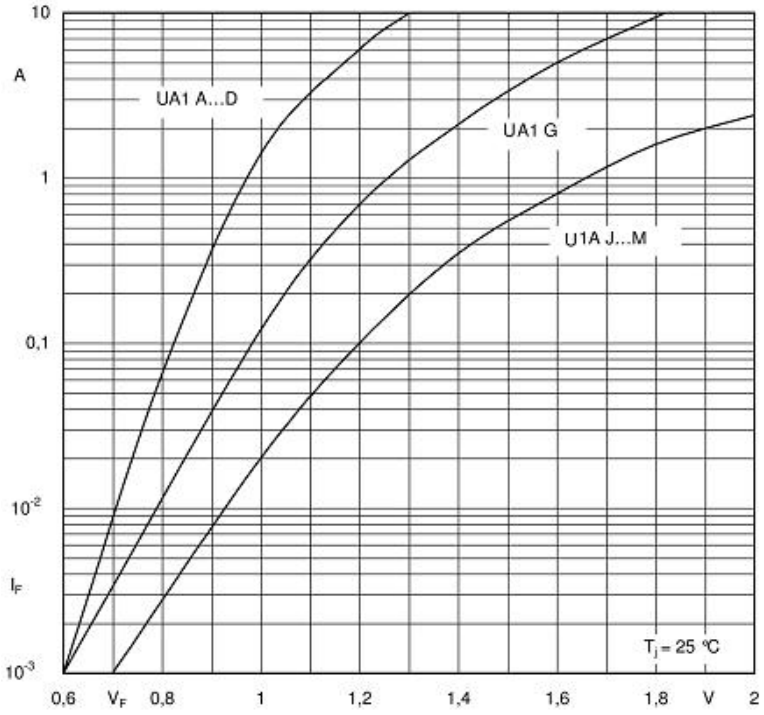

Fig. 1 Forward characteristics (typical values)

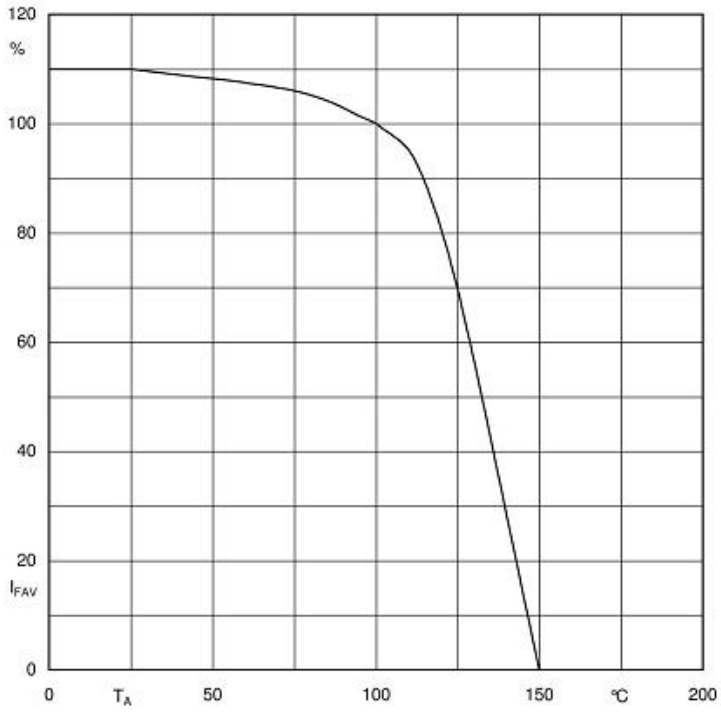

Fig. 2 Rated forward current vs. temp. of the terminals[4])

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