

Chip-SPD 『BEST』 over voltage Protection Solution

Surge , Load Dump & ESD Protection Device

SHA Series



Description

Surge is the voltage happen the abnormal rise or down in short time. Also in the automotive environment have more strictly request in the Load Dump ability. Our SHA series products have the world highest level load dump ability and also meet ISO7637 standard pulse 5a requirement. These series have the products for 12V and 24V systems for automotive Load Dump protection and requirement.



Features

1. Ultra high current handle ability , up to 3000A
2. Several Surge Voltage ability and Surge Current ability.
3. Breakdown Voltage Concentration ratio higher 99.5%
4. High nonlinear exponent α up to 50
5. Ultra low leakage current $< 5 \mu\text{A}$
6. Ultra high temperature up to 125 degree

Application

1. Telecom equipment RJ45/LAN connector
2. Outdoor/ Indoor AP/ IAD
3. Security system IP CAM
4. Base station
5. Low voltage power line

SHA Series Specification for 12V Automotive

Part Number	Working Voltage	Breakdown Voltage	Clamping Voltage	Peak Current	Load Dump	Jump Start Voltage (5min)
Symbol	DC	V (1mA)	V	A	$W_{LD}(J)$	$V_{JUMP}(V)$
SFI1206SA240-1R5J	12	24($\pm 10\%$)	< 40	400 (for +/- 1 time)	1.5 (for 10 times)	24.5
SFI1206SA240-030J	12	24($\pm 10\%$)	< 40	400 (for +/- 1 time)	3 (for 10 times)	24.5
SFI1206SA240-060J	12	24($\pm 10\%$)	< 40	500 (for +/- 1 time)	6 (for 10 times)	24.5
SFI1210SA240-030J	12	24($\pm 10\%$)	< 40	800 (for +/- 1 time)	3 (for 10 times)	24.5
SFI1210SA240-060J	12	24($\pm 10\%$)	< 40	800 (for +/- 1 time)	6 (for 10 times)	24.5
SFI1210SA240-120J	12	24($\pm 10\%$)	< 40	1000 (for +/- 1 time)	12 (for 10 times)	24.5
SFI1812SA240-060J	12	24($\pm 10\%$)	< 40	1600 (for +/- 1 time)	6 (for 10 times)	24.5
SFI1812SA240-120J	12	24($\pm 10\%$)	< 40	1600 (for +/- 1 time)	12 (for 10 times)	24.5
SFI1812SA240-250J	12	24($\pm 10\%$)	< 40	2000 (for +/- 1 time)	25 (for 10 times)	24.5
SFI2220SA240-120J	12	24($\pm 10\%$)	< 40	3000 (for +/- 1 time)	12 (for 10 times)	24.5
SFI2220SA240-250J	12	24($\pm 10\%$)	< 40	3000 (for +/- 1 time)	25 (for 10 times)	24.5
SFI2220SA240-500J	12	24($\pm 10\%$)	< 40	5000 (for +/- 1 time)	50 (for 10 times)	24.5
SFI3220SA240-500J	12	24($\pm 10\%$)	< 40	5000 (for +/- 1 time)	50 (for 10 times)	24.5
SFI3220SA240-800J	12	24($\pm 10\%$)	< 40	5000 (for +/- 1 time)	80 (for 10 times)	24.5
SFI2220SA470-250J	24	47($\pm 10\%$)	< 77	3000 (for +/- 1 time)	25 (for 10 times)	45.0
SFI2220SA470-500J	24	47($\pm 10\%$)	< 77	4000 (for +/- 1 time)	50 (for 10 times)	45.0
SFI3220SA470-500J	24	47($\pm 10\%$)	< 77	5000 (for +/- 1 time)	50 (for 10 times)	45.0
SFI3220SA470-800J	24	47($\pm 10\%$)	< 77	5000 (for +/- 1 time)	80 (for 10 times)	45.0



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All the parameters will follow the data sheet , without notice