

OVERVIEW

The SM6503A is the Diode array for ESD protection. 5 circuits consisted of diode element are integrated into ultra-small 6 pin plastic package. It is the most appropriate to protect the external interface circuit of portable equipment which requires miniaturization from ESD.

FEATURES

- ± 12kV ESD immunity level (IEC61000-4-2 contact discharge)
- Clamp voltage: 7.5V typ.
- Low capacitance: 10pF typ.
- 5 circuits integrated into one package
- Ultra-small package
 - SM6503AD: 6-pin SON
 - SM6503AH: SOT23-6

APPLICATIONS

- Cellular phone
- PDA
- Set Top Box
- Digital Still Camera

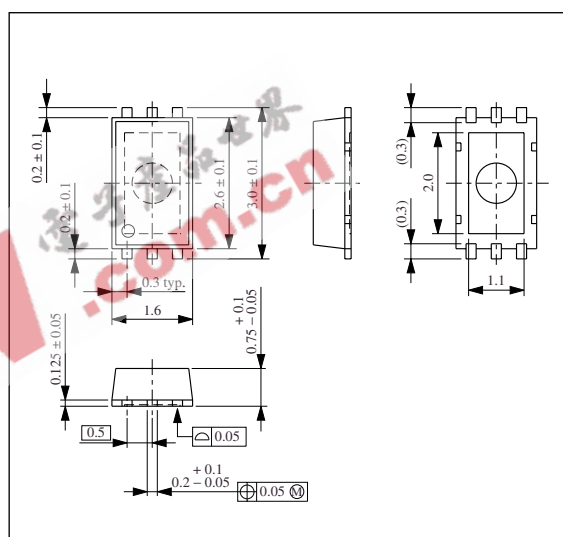
ORDERING INFORMATION

Device	Package
SM6503AD	6-pin SON
SM6503AH	SOT23-6

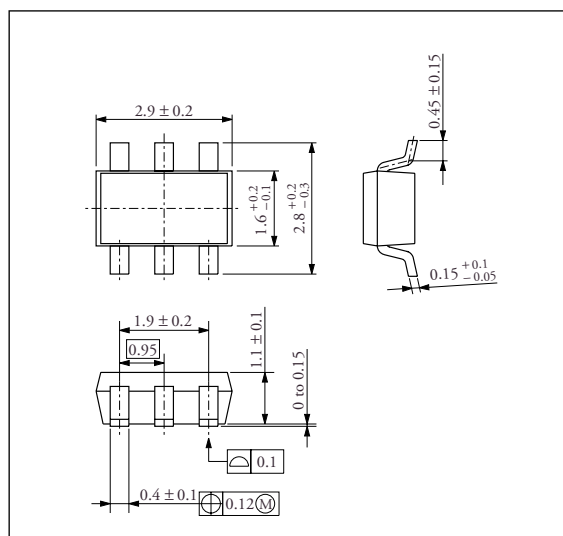
PACKAGE DIMENSIONS

(Unit: mm)

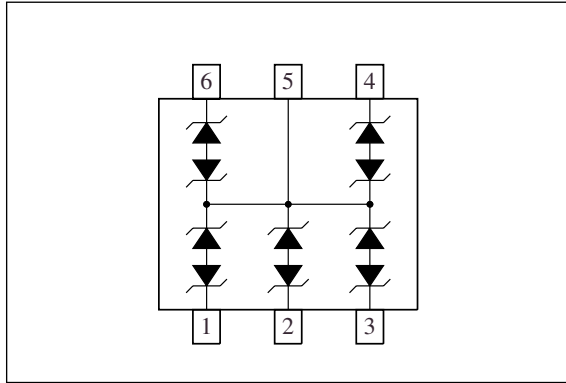
SM6503AD (6-pin SON)



SM6503AH (SOT23-6)



PINOUT (Top view)



PIN DESCRIPTION

Number	Name	Description
1	DIO1	Diode 1
2	DIO2	Diode 2
3	DIO3	Diode 3
4	DIO4	Diode 4
5	VSS	Ground
6	DIO5	Diode 5

SPECIFICATIONS

Absolute Maximum Ratings

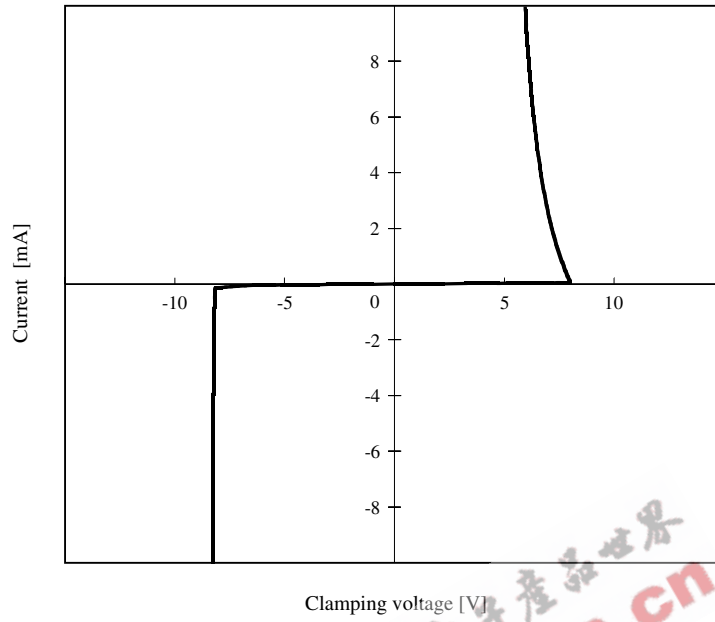
Ta = 25°C

Parameter	Symbol	Condition	Rating	Unit
Power dissipation	P _D		220	mW
Storage temperature range	T _{stg}		-55 to 125	°C

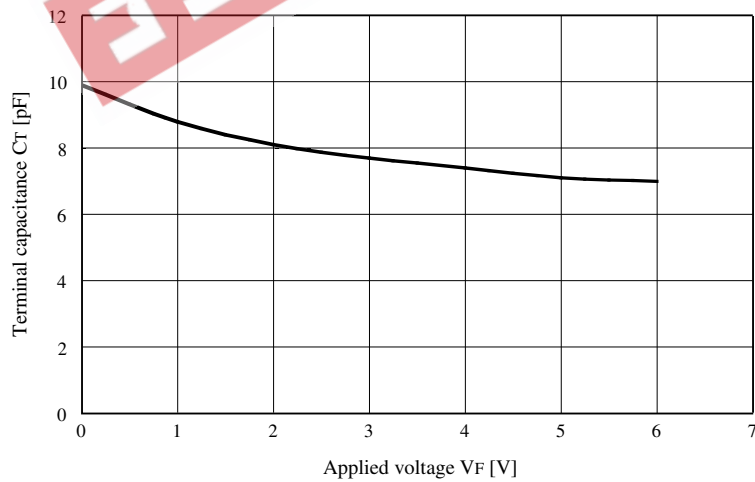
Electrical Characteristics

Ta = 25°C

Parameter	Symbol	Condition	Rating			Unit
			min	typ	max	
Diode maximum leakage current	I _{LEAK}	6V applied	-	-	1	μA
Forward clamp voltage	V _{ZF}	I _Z = 1μA	6.5	7.5	8.5	V
		I _Z = 5mA	-	6.5	-	V
Reverse clamp voltage	V _{ZR}	I _Z = -1μA	-8.5	-7.5	-6.5	V
		I _Z = -5mA	-	-8.0	-	V
Terminal capacitance	C _T	f = 1MHz, between DIO1 to DIO5 and VSS	-	10	-	pF
Maximum operating voltage	V _{MAX}		-	-	6	V

TYPICAL PERFORMANCE**V-I Characteristics (between DIO1 to DIO5 and VSS)****Terminal Capacitance vs. Applied Voltage**

f = 1MHz



EEPW 电子產品世界
.com.cn

NIPPON PRECISION CIRCUITS INC. reserves the right to make changes to the products described in this data sheet in order to improve the design or performance and to supply the best possible products. Nippon Precision Circuits Inc. assumes no responsibility for the use of any circuits shown in this data sheet, conveys no license under any patent or other rights, and makes no claim that the circuits are free from patent infringement. Applications for any devices shown in this data sheet are for illustration only and Nippon Precision Circuits Inc. makes no claim or warranty that such applications will be suitable for the use specified without further testing or modification. The products described in this data sheet are not intended to use for the apparatus which influence human lives due to the failure or malfunction of the products. Customers are requested to comply with applicable laws and regulations in effect now and hereinafter, including compliance with export controls on the distribution or dissemination of the products. Customers shall not export, directly or indirectly, any products without first obtaining required licenses and approvals from appropriate government agencies.

NPC
NIPPON PRECISION CIRCUITS INC.

NIPPON PRECISION CIRCUITS INC.

4-3, Fukuzumi 2-chome, Koto-ku,
Tokyo 135-8430, Japan
Telephone: +81-3-3642-6661
Facsimile: +81-3-3642-6698
<http://www.npc.co.jp/>
Email: sales@npc.co.jp

NC0023AE 2001.05