

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

- ± 8kV 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

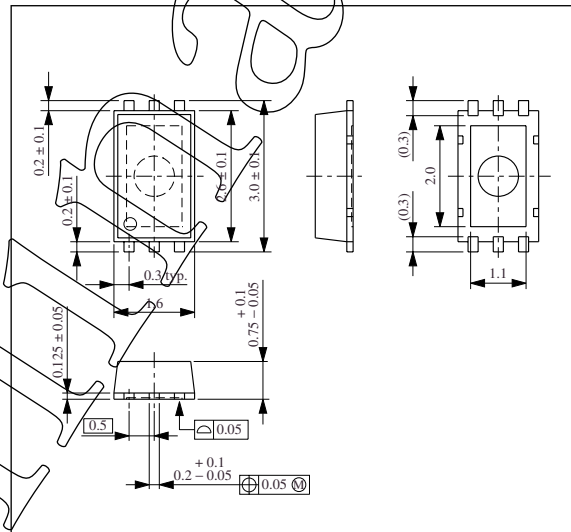
ORDERING INFORMATION

Device	Package
SM6503AD	6-pin SON
SM6503AH	SOT23-6

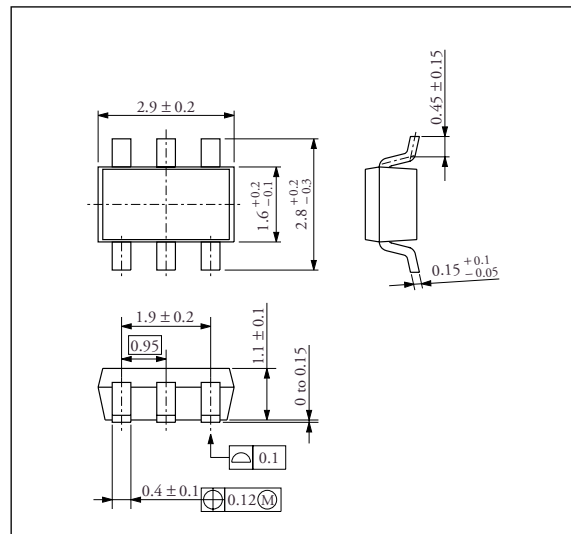
PACKAGE DIMENSIONS

(Unit: mm)

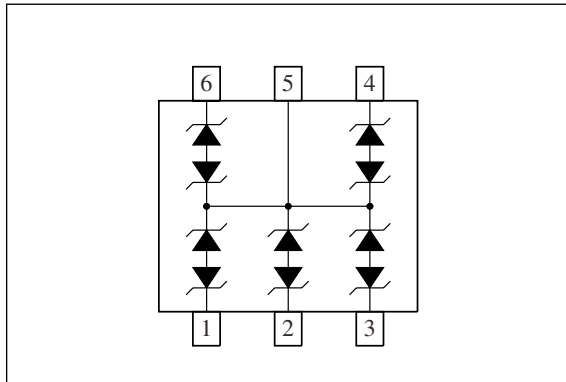
SM6503AD (6-pin SON)



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

Preliminary

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