



**DESCRIPTION**

The SD03C~SD36C are available in SOD-323 package.

**APPLICATIONS**

- Cell Phone Handsets and Accessories
- Microprocessor based equipment
- Personal Digital Assistants (PDA's)
- Notebooks, Desktops, and Servers
- Portable Instrumentation
- Networking and Telecom
- Serial and Parallel Ports.
- Peripherals

**FEATURES**

- IEC61000-4-2 (ESD) ±15kV (air), ±8kV (contact)
- IEC61000-4-4 (EFT) 40A (5/50ns)
- 350 Watts Peak Pulse Power per (tp=8/20µs)
- Protects one I/O line (bidirectional)
- Low clamping voltage
- Working voltages :3V,5V,8V,12V,15V,18V,24V,36V
- Low leakage current

**MECHANICAL DATA**

- SOD-323 package
- High temperature soldering: 260°C/10s

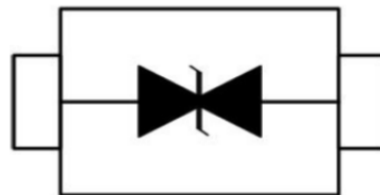
**ORDERING INFORMATION**

Package Type	Part Number
SOD-323	SD03C
	SD05C
	SD08C
	SD012C
	SD015C
	SD018C
	SD024C
	SD036C
SPQ	3,000pcs/Reel
AiT provides all RoHS Compliant Products	

**PIN DESCRIPTION**



SOD-323





## ABSOLUTE MAXIMUM RATINGS

Parameter	Symbol	Value	Unit
ESD per IEC 61000-4-2(Air)	V <sub>ESD</sub>	±15	kV
ESD per IEC 61000-4-2(Contact)		±8	
Peak Pulse Power (8/20µs)	P <sub>PP</sub>	350	W
Operating Temperature	T <sub>OPT</sub>	-55/+150	°C
Storage Temperature	T <sub>STG</sub>	-55/+150	°C
Lead Soldering Temperature	T <sub>L</sub>	260(10sec.)	°C

Stresses above may cause permanent damage to the device. These are stress ratings only and functional operation of the device at these or any other conditions beyond those indicated in the Electrical Characteristics are not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.

## ELECTRICAL CHARACTERISTICS

T<sub>A</sub>=25°C

Part Number	V <sub>RWM</sub> (V) Max.	V <sub>B</sub> (V) Min.	I <sub>T</sub> (mA)	V <sub>C@1A</sub> (V) Max.	V <sub>C</sub> (V)		I <sub>R</sub> (µA) Max.	C <sub>T</sub> (pF) Max.
					Max.	@A		
SD03C	3.3	4.0	1	7.5	10.5	20	40	450
SD05C	5.0	6.0	1	9.8	18.0	17	10	200
SD08C	8.0	8.5	1	13.4	24.0	15	2	120
SD012C	12.0	13.3	1	19.0	32.0	11	1	75
SD015C	15.0	16.7	1	24.0	38.0	10	1	68
SD018C	18.0	20.0	1	29.0	45.0	9	1	57
SD024C	24.0	26.7	1	43.0	52.0	7	1	50
SD036C	36.0	40.0	1	60.0	75.0	5	1	35



## TYPICAL CHARACTERISTICS

Fig 1. Pulse Waveform

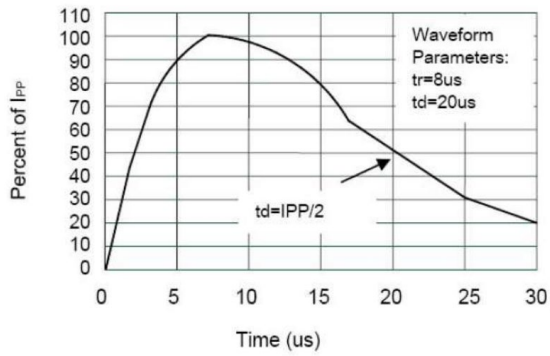


Fig 2. Non-Repetitive Peak Pulse Power vs. Pulse Time

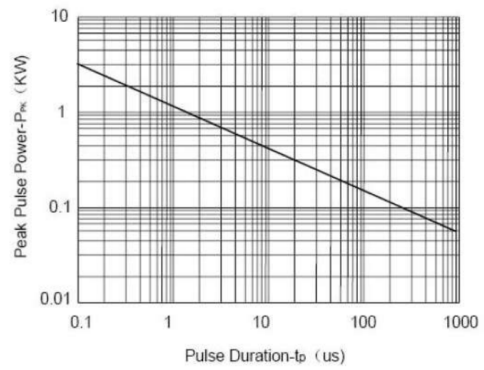


Fig 3. Power Derating Curve

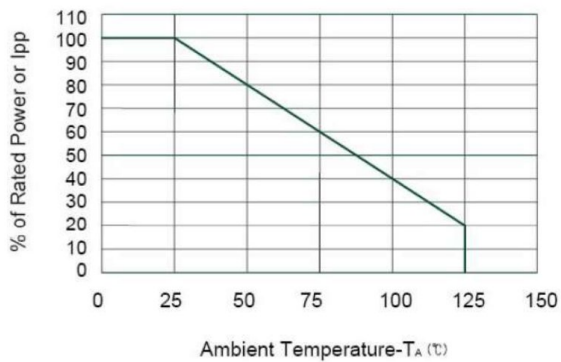
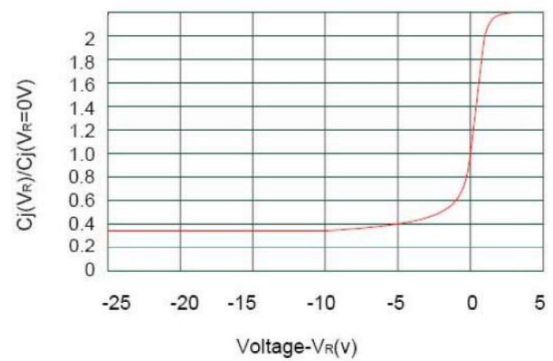


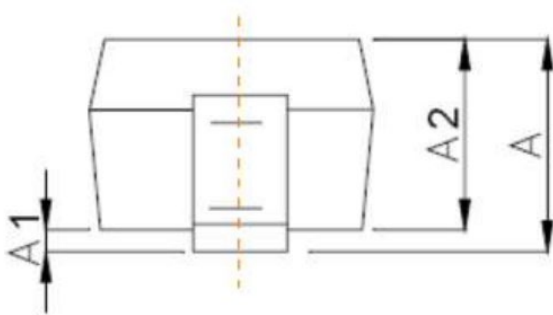
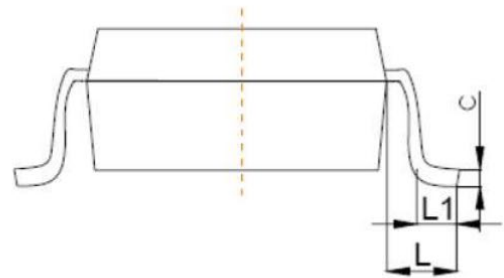
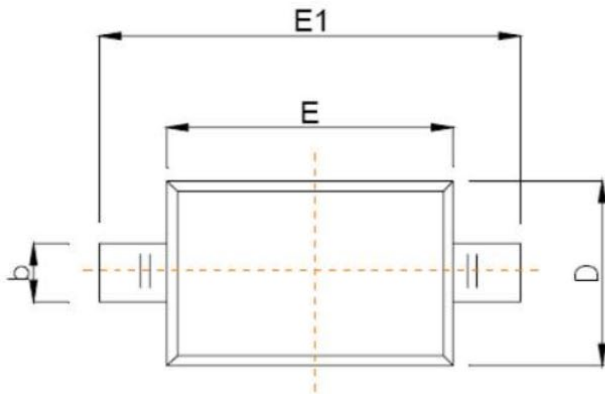
Fig 4. Junction Capacitance vs. Reverse Voltage



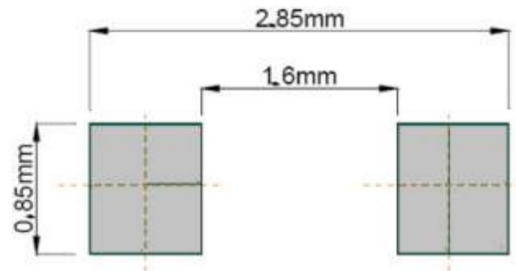


**PACKAGE INFORMATION**

Dimension in SOD-323 (Unit: mm)



**RECOMMENDED MOUNTING FOOTPRINT**



Symbol	Min	Max
A	-	1.000
A1	0.000	0.100
A2	0.800	0.900
b	0.250	0.350
c	0.080	0.150
D	1.200	1.400
E	1.600	1.800
E1	2.500	2.700
e	1.800	2.040
L	0.475	
L1	0.250	0.400
$\theta$	0°	8°



## IMPORTANT NOTICE

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