Elektronische Bauelemente

SD03CL~SD24CL

Voltage 3V ~ 24V

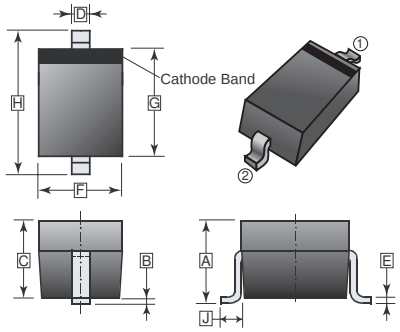
250W Plastic Encapsulate ESD Protection Diodes

RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

DESCRIPTION

The Series are ultra low capacitance transient voltage suppressor arrays, designed to protect applications such as portable electronics and SMART phones. This series is available in both unidirectional and bidirectional configurations and is rated at 350 Watts for an 8/20μs waveshape. The Series meets IEC 61000-4-2 (ESD) and IEC 61000-4-4 (EFT) requirements. At higher operating frequencies or faster edge rates, insertion loss and signal integrity are a major concern. This series offers a ultra low capacitance and low leakage current in a miniature SOD-323 package.

SOD-323



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A		1.00	F	1.20	1.40
B	0.00	0.10	G	1.60	1.80
C	0.80	0.90	H	2.50	2.70
D	0.25	0.35	J	0.475 REF.	
E	0.08	0.15			

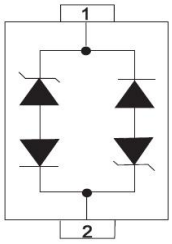
FEATURES

- IEC61000-4-2 (ESD) ±15kV (air), ±8kV (contact)
- IEC61000-4-4 (EFT) 40A (5/50ns)
- Protects one I/O line (bidirectional)
- Low clamping voltage

MECHANICAL DATA

- Case：SOD-323
- Flammability Rating: UL 94V-0
- High temperature soldering guaranted:260℃/10s

Top View



MARKING

Part Number	SD03CL	SD05CL	SD08CL
Marking	CC	AC	BC
Part Number	SD12CL	SD15CL	SD24CL
Marking	DC	EC	HC

PACKAGE INFORMATION

Package	**MPQ**	**Leader Size**
SOD-323	3K	7' inch

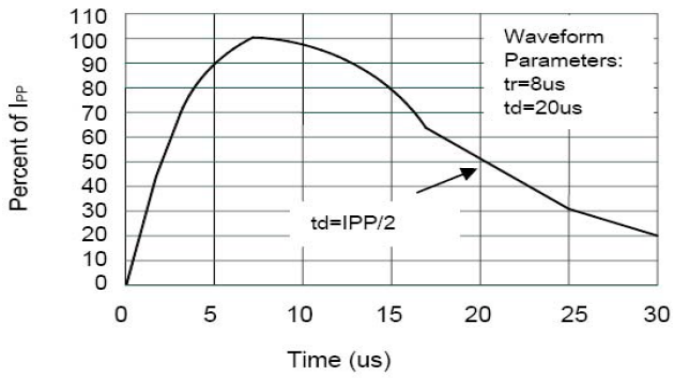
MAXIMUM RATINGS (T_A=25℃ unless otherwise specified)

Parameter		**Symbol**	**Value**	**Unit**
ESD per IEC 61000-4-2	Air	V_{ESD}	±15	KV
	Contact		±8	
Peak Pulse Power (tp = 8/20μs)		Ppp	250	W
Lead Soldering Temperature		T_L	260	℃
Operating Temperature Range		T_{OPT}	-55 ~ 150	℃
Storage Temperature Range		T_{STG}	-55 ~ 150	℃

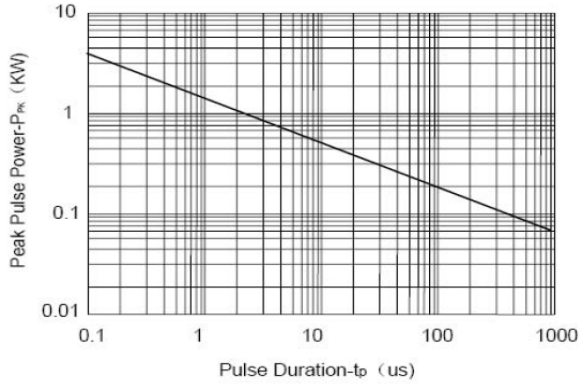
ELECTRICAL CHARACTERISTICS PER LINE (T_A=25℃ unless otherwise specified)

Part Number	Rated-Stand-Off Voltage	Reverse Breakdown Voltage		Maximum Clamping Voltage @8/20μs P_{PPM}				Leakage Current	Capacitance
	V_{RWM}	V_{BR} @ I_T		V_C @ I_{PP}				I_R @ V_{RWM}	C
	Max.	Min.	I_T					Max.	Typ.
	V	V	mA	V	A	V	A	μA	pF
SD03CL	3	4	1	7	1	13.9	8	20	0.8
SD05CL	5	6	1	9.8	1	18.3	8	5	0.8
SD08CL	8	8.5	1	13.4	1	18.5	8	2	0.8
SD12CL	12	13.3	1	19	1	28.6	6	1	0.8
SD15CL	15	16.7	1	24	1	31.8	5	1	0.8
SD24CL	24	26.7	1	43	1	56	3	1	0.8

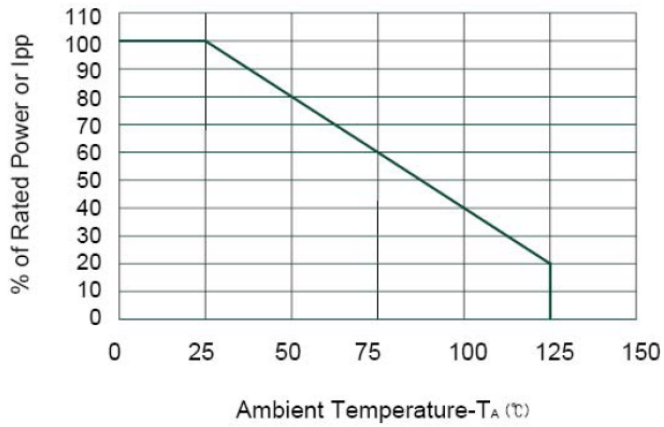
RATINGS AND CHARACTERISTICS CURVES



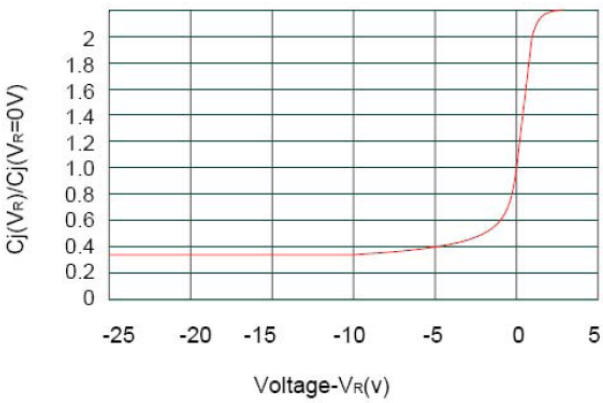
Pulse Waveform



Non-Repetitive Peak Pulse Power vs. Pulse Time



Power Derating Curve



Junction Capacitance vs. Reverse Voltage