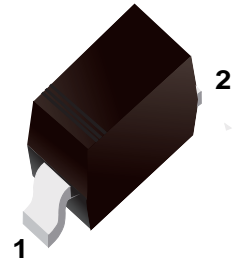


■ **Bidirectional Ultra Low Capacitance TVS Array**

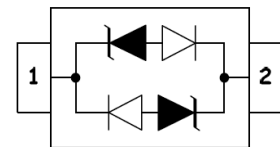
■ **Description**

The ESDCxxC 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 ESDCxxC and 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.



■ **Simplified outline(SOD-323)**



■ **Features**

- IEC61000-4-2 (ESD) ±15kV (air), ±8kV (contact)
- IEC61000-4-4 (EFT) 40A (5/50ns)
- IEC61000-4-5 (Lightning) 12A (8/20μs)
- Protects one I/O line (bidirectional)
- Low clamping voltage
- Working voltages : 3V, 5V, 8V, 12V, 15V, 24V
- Low leakage current
- Response Time is < 1 ns

■ **Machanical Data**

- SOD-323 package
- Flammability Rating: UL 94V-0
- Packaging: Tape and Reel
- High temperature soldering guaranteed:260°C/10s
- Reel size: 7 inch
- MSL1

■ **Applications**

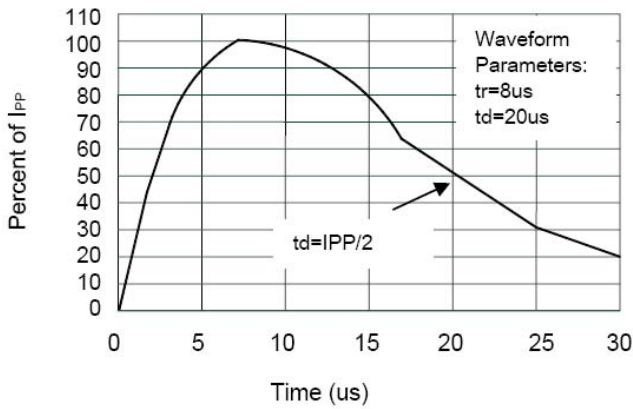
- Cell Phone Handsets and Accessories
- Microprocessor based equipment
- Personal Digital Assistants (PDA's)
- Notebooks, Desktops, and Servers
- Portable Instrumentation
- Peripherals
- USB Interface

■ Absolute Maximum Ratings Ta = 25°C

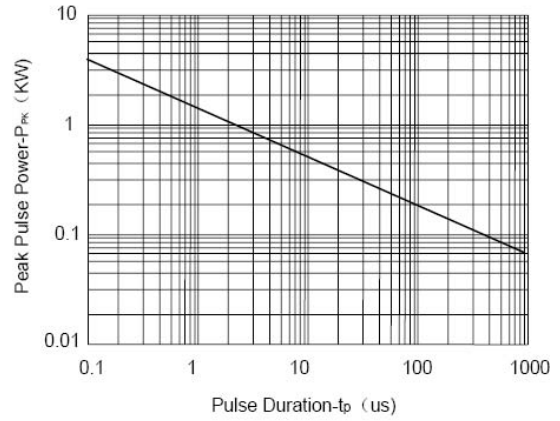
Symbol	Parameter	Value	Units
V _{ESD}	ESD per IEC 61000-4-2 (Air)	±15	kV
	ESD per IEC 61000-4-2 (Contact)	±8	
P _{PP}	Peak Pulse Power (8/20μs)	350	W
T _{OPT}	Operating Temperature	-55/+150	°C
T _{STG}	Storage Temperature	-55/+150	°C
T _L	Lead Soldering Temperature	260	°C

■ Electrical Characteristics Ta = 25°C

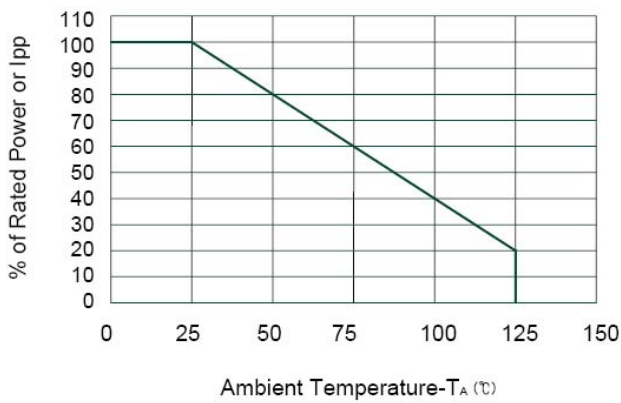
PART NUMBER	DEVICE MARKING	V _{RWM}	V _B	I _T	V _{C@1A}	V _C		I _R	C _T
		(V) (max.)	(V) (min.)	(mA)	(V) (max.)	(V) (max.)	(@A)	(μA) (max.)	(pF) (typ.)
ESDC03C	CC	3.0	4.0	1	7.0	13.9	8	2	0.8
ESDC05C	AC	5.0	6.0	1	9.8	18.3	8	1	0.8
ESDC08C	BC	8.0	8.5	1	13.4	18.5	8	1	0.8
ESDC12C	DC	12.0	13.3	1	19.0	28.6	6	1	0.8
ESDC15C	EC	15.0	16.7	1	24.0	31.8	5	1	0.8
ESDC24C	HC	24.0	26.7	1	43.0	56.0	3	1	0.8



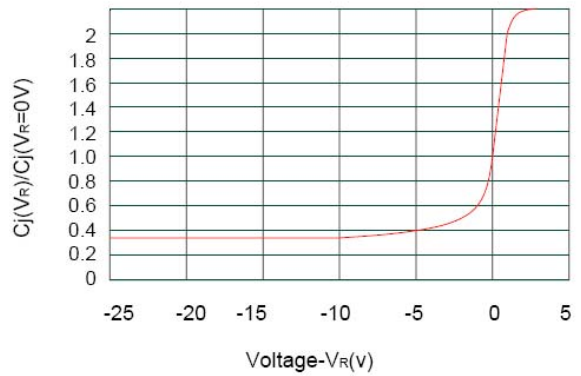
Pulse Waveform



Non-Repetitive Peak Pulse Power vs. Pulse Time



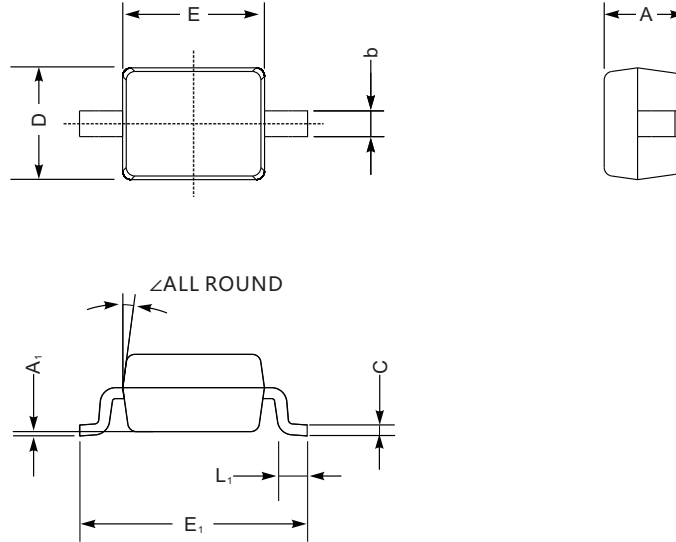
Power Derating Curve



Junction Capacitance vs. Reverse Voltage

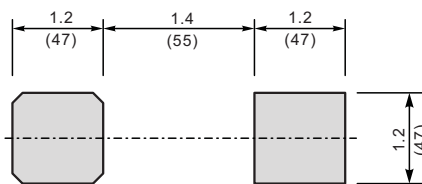
Package Outline SOD-323

Plastic surface mounted package; 2 leads



UNIT		A	C	D	E	E ₁	b	L ₁	A ₁	∠
mm	max	1.1	0.15	1.4	1.8	2.75	0.4	0.45	0.2	9°
	min	0.8	0.08	1.2	1.4	2.55	0.25	0.2	—	
mil	max	43	5.9	55	70	108	16	16	8	
	min	32	3.1	47	63	100	9.8	7.9	—	

The recommended mounting pad size



Unit: $\frac{\text{mm}}{\text{(mil)}}$

Summary of Packing Options

Package	Packing Description	Packing Quantity	Industry Standard
SOD-323	Tape/Reel, 7" reel	3000	EIA-481-1