

ESD05CL

Ultra LOW CAPACITANCE TVS ARRAY

Description

The ESD05CL ESD protection diode is designed for portable applications such as cell phones, notebook computers, and PDA's. They feature large cross-sectional area junctions for conducting high transient currents, offer desirable electrical characteristics for board level protection, such as fast response time, lower operating voltage, lower clamping voltage and no device degradation

Features

- Complies with the following standards
- IEC61000-4-2
- Level 4 15 kV (air discharge)
- 8 kV(contact discharge)
- MIL STD 883E - Method 3015-7 Class 3
- 25 kV HBM (Human Body Model)
- Unidirectional & Bidirectional Configuration
- Protects One Power or I/O Port
- Low Clamping Voltage
- Ultra Low Capacitance: 3pF (Typical)
- RoHS Compliant Package

Mechanical Data

- Molded JEDEC SOD-323 Package
- Approximate Weight: 5 milligrams
- Lead-Free Pure-Tin Plating (Annealed)
- Solder Reflow Temperature: Pure-Tin - Sn, 100:260-270°C
- 8mm Tape and Reel Per EIA Standard 481
- Flammability Rating UL 94V-0

Applications:

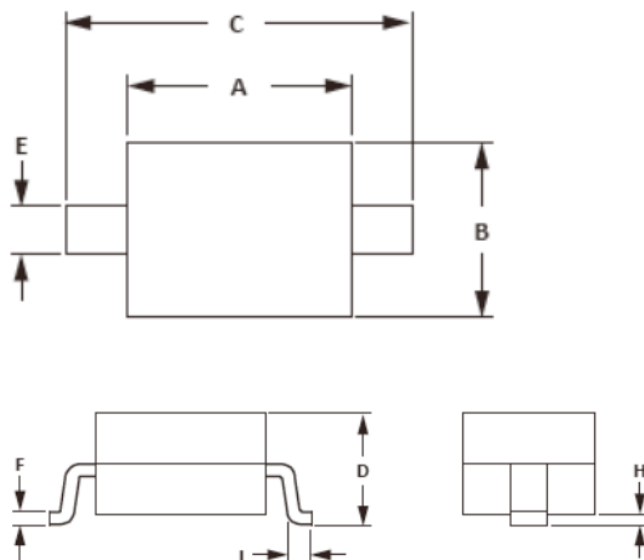
- Ethernet 10/100/1000 Base T
- SMART Phones
- Handheld - Wireless Systems
- USB Interface

Packing & Order Information

3,000/Reel



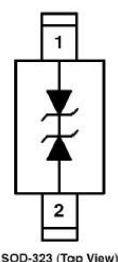
**RoHS
COMPLIANT**



OUTLINE DIMENSIONS				
DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	1.60	1.90	0.063	0.075
B	1.15	1.45	0.045	0.057
C	2.39	2.70	0.094	0.106
D	0.80	1.10	0.031	0.043
E	0.25	0.40	0.010	0.016
F	0.10	0.20	0.004	0.008
H	-	0.10	-	0.004
L	0.20	-	0.008	-

NOTES
1. Controlling dimension: millimeters.
2. Dimensioning and tolerances per ANSI Y14.5M, 1985.
3. Dimensions are exclusive of mold flash and metal burrs.

Graphic symbol



SOD-323 (Top View)

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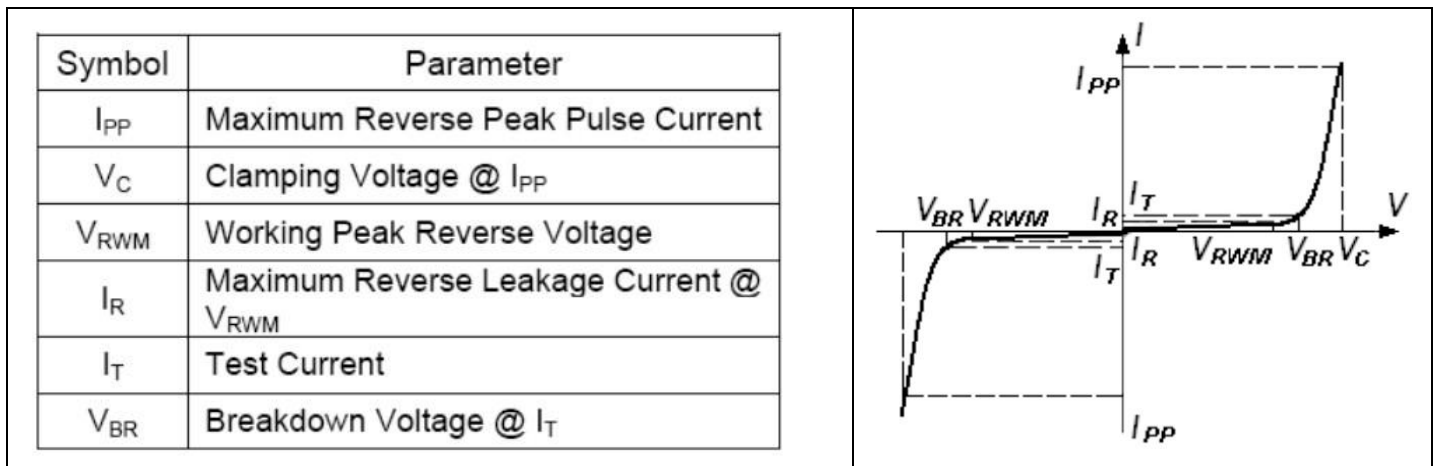
MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Absolute ratings (limiting value)

Symbol	Parameter	Value	Unit
Ppk	Peak Pulse Power (tp = 8/20μs)	120	W
I _{PP}	Peak Pulse Current (tp = 8/20μs)	12	A
T _{STG}	Storage Temperature Range	-55 to +150	°C
T _L	Maximum lead temperature for soldering during 10s	260	°C
T _J	Maximum junction temperature	-55 to +125	°C

Electrical Characteristics

Part Numbers	VBR			IT	VRWM	IR	Cj
	Min.	Typ.	Max.				
	V	V	V				
ESD05CL	6.1	6.6	7.2	1	5.0	1	3



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Typical Characteristics

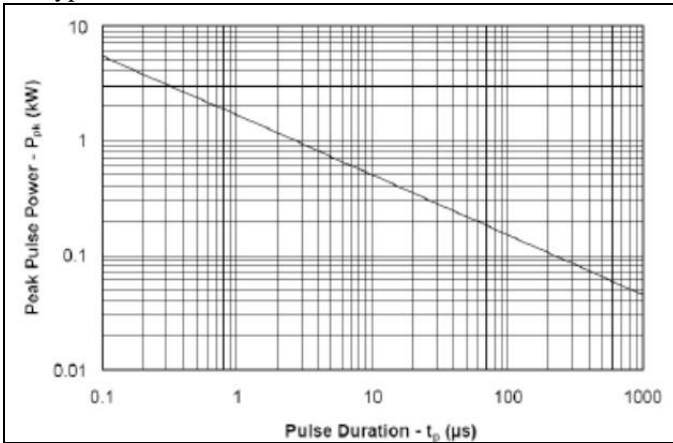


FIG.1-NON-REPETITIVE PEAK PULSE POWER VS. TIME

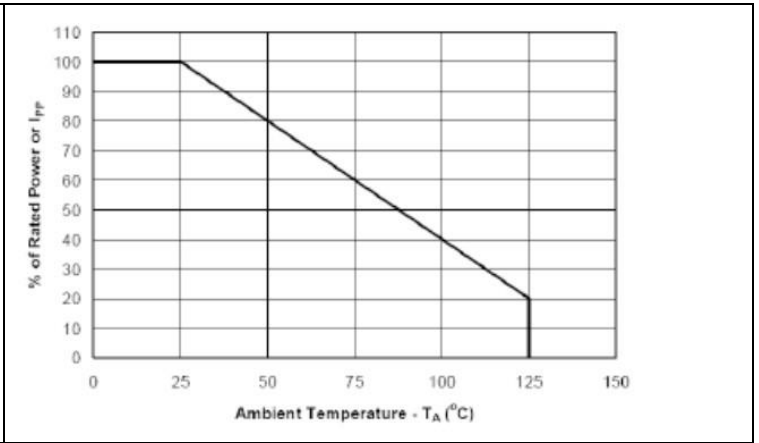


FIG.2-POWER DERATING CURVE

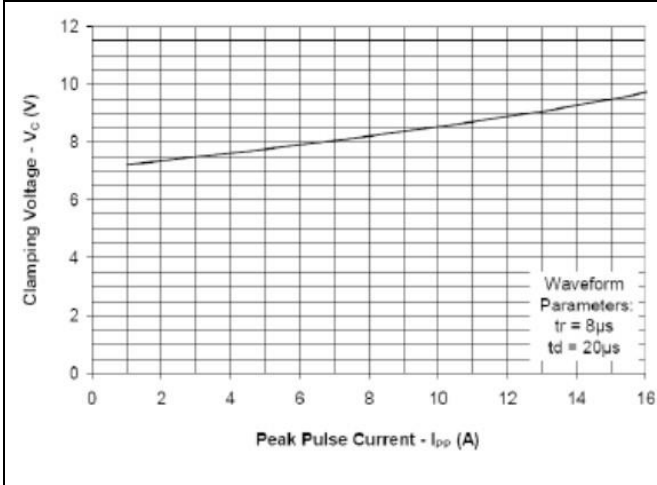


FIG.3-CLAMPING VOLTAGE VS. PEAK PULSE CURRENT

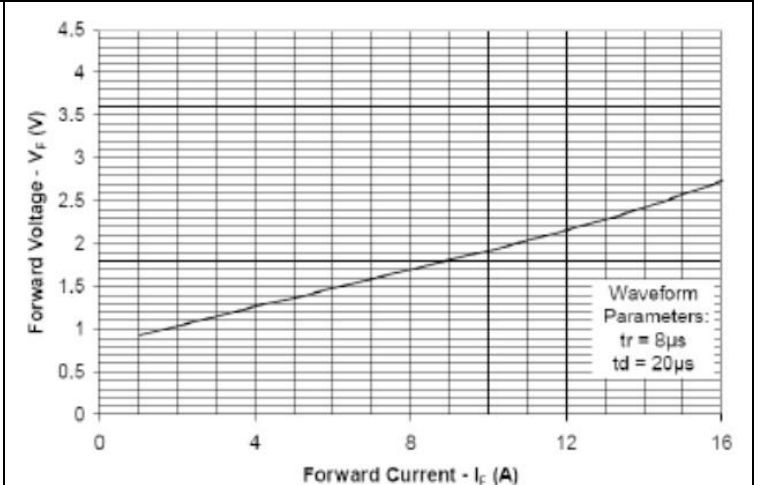


FIG.4-FORWARD VOLTAGE VS. FORWARD CURRENT

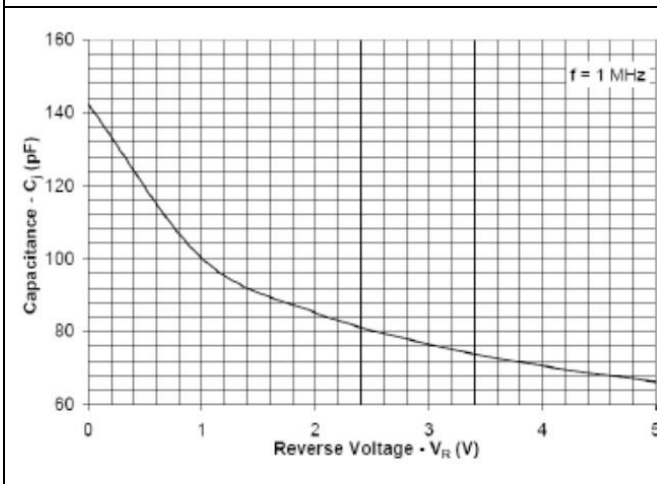


FIG.5-CAPACITANCE VS. REVERSE VOLTAGE

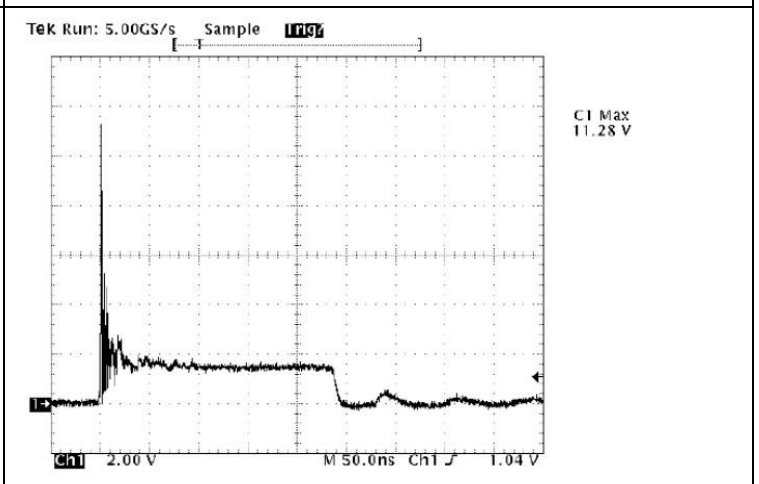


FIG.6-FORWARD VOLTAGE VS. FORWARD CURRENT

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