

### Description

This is working voltage 15V ESD protection diode in a SOD-323 package.

### Applications

- Mobile Phones and Accessories
- Battery Protection
- Power Supply Protection
- Hand Held Portable Applications
- Peripherals

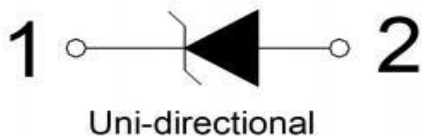
### Features

- 2-pin lead-less package
- Junction Capacitance (Max value: 400pF)
- Peak Pulse Current (8/20 $\mu$ s) MAX : 120A
- IEC61000-4-2 (ESD)  $\pm$ 30kV (air),  $\pm$ 30kV (contact)
- Low Leakage Current
- Working Voltages:15V
- RoHS Compliant

### Mechanical Characteristics

- Lead Finish:Matte Tin
- Case Material: “Green” Molding Compound
- UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 3 per J-STD-020
- Tape Reel :3000pcs

### Equivalent Circuit & Pinning



### Marking

Marking : 57D

**Absolute Maximum Ratings(Ta=25°C)**

Parameters	Symbol	Value	Unit
Peak Pulse Power (tp=8/20μs waveform)	PPP	4320	W
Peak Pulse Current (8/20μs)	IPP	120	A
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	VESD	±30 ±30	KV
Operating Temperature Range	TJ	-55 to +125	°C
Storage Temperature Range	Tstg	-55 to +150	°C

**Electrical Characteristics (Ta=25°C)**

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Working Voltage	VRWM				15	V
Reverse Breakdown Voltage	VBR	IR = 1mA	16.7		19.3	V
Reverse Leakage Current	IR	VR = 15V			1	uA
Clamping Voltage	VC	IPP = 40A,TP=8/20us		22	26	V
Clamping Voltage	VC	IPP = 120A,TP=8/20us		30	36	V
Junction Capacitance	CJ	VR =0V,f = 1MHz		300	400	pF

Typical Characteristics

FIG1: Power rating derating curve

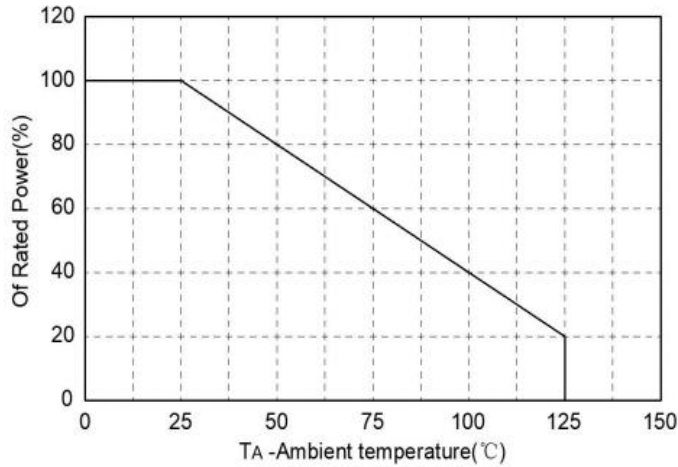


FIG2: pulse Waveform

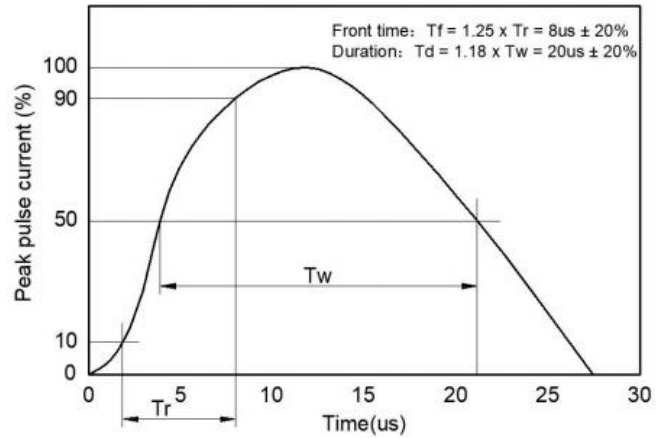


FIG3: Capacitance between Terminals Characteristics

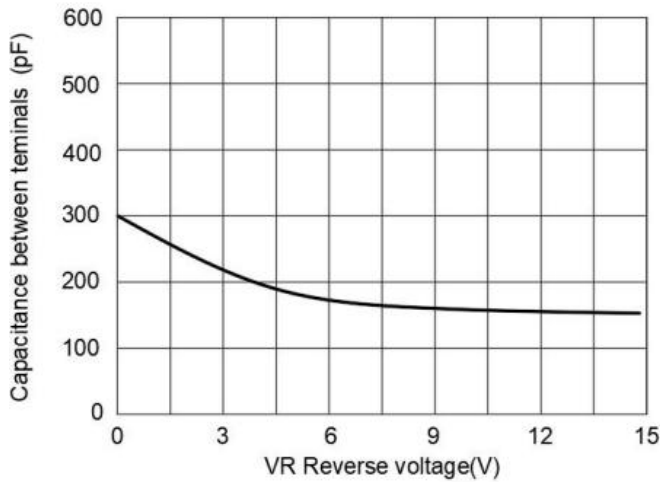
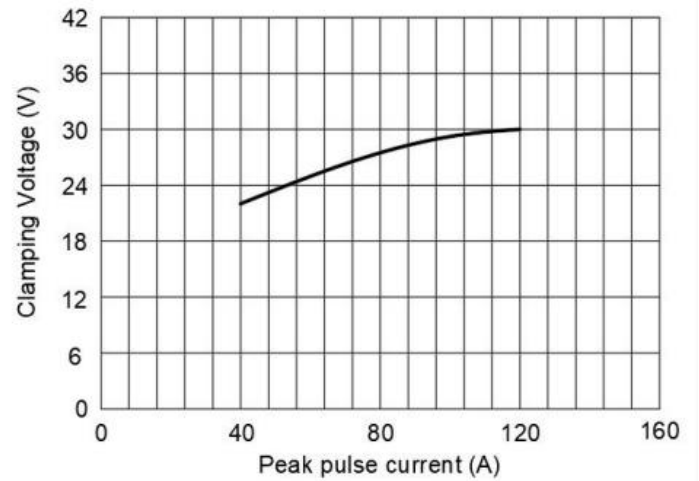
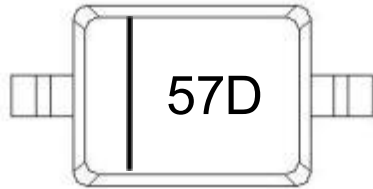


FIG4: Clamping Voltage vs. Peak Pulse Current

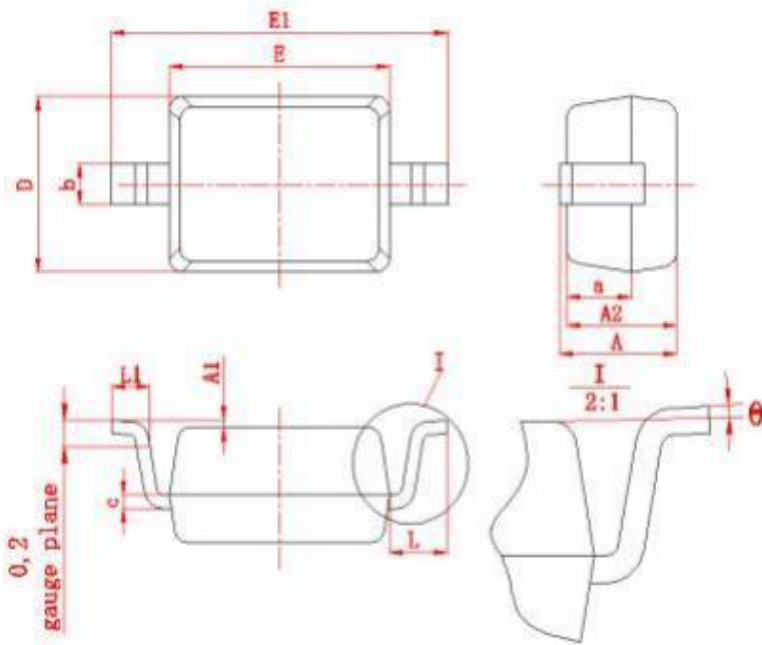


Marking Information



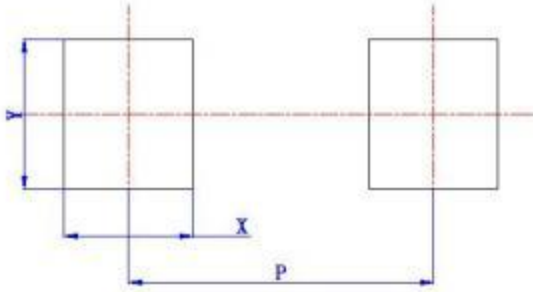
57D=Marking Code

Package mechanical data



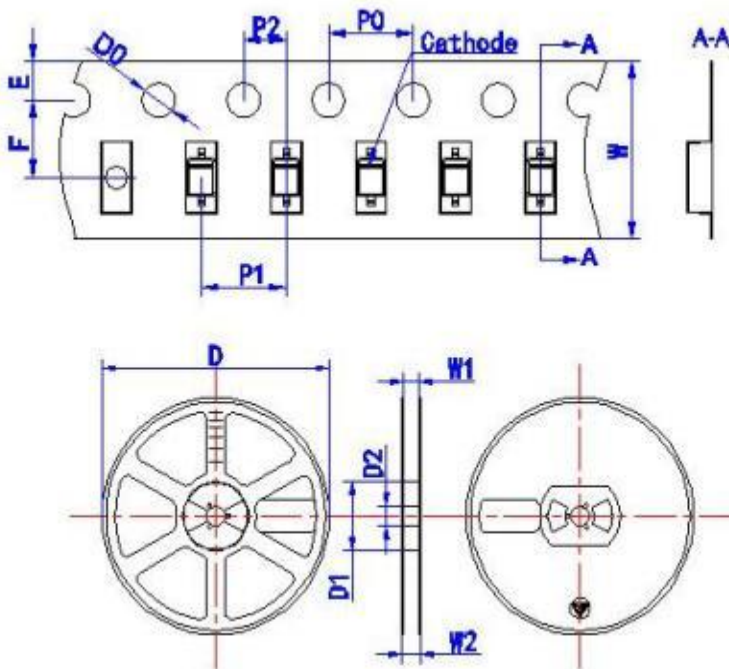
Symbol	Millimeters	
	Min.	Max.
A	0.80	1.05
A1	0	0.1
A2	0.8	0.95
a	(0.5)	
D	1.2	1.4
E	1.6	1.8
E1	2.5	2.75
b	0.25	0.35
c	0.08	0.15
L	(0.475)	
L1	0.25	0.45
$\theta$	0°	8°

Suggested Land Pattern



Symbol	Dimension in Millimeters
	Typ.
X	(0.7)
Y	(0.7)
P	(2.3)

Tape & reel specification - SOD-323



Symbol	Dimension in Millimeters
<b>Tape</b>	
D0	1.50+0.10/-0.00
E	1.75±0.10
F	3.50±0.10
P0	4.00±0.10
P1	4.00±0.10
P2	2.00±0.10
W	8.00+0.3/-0.1
<b>Reel</b>	
D	178.0±2.00
D1	54.40±1.00
D2	13.00±1.00
W1	9.50±1.00
W2	12.30±1.00