

DC/Phone/Data Lines

Surge Protective Devices

for Signal & Communication



Introduction

This specification defines the DC/Phone/Data Lines SPD. Generally referred to as SPD (Surge Protective Device) means devices intended to prevent or minimize damage to power and communication devices by suppressing surges from the track and ground sides. The SPD for telecommunication is designed to contain the write voltage below the target value for any possible surge in data, signals, voice, broadcasting or telephone lines .

Environmental Conditions

- Operating Temperature : $-40^{\circ}\text{C} \sim +70^{\circ}\text{C}$
- Storage Temperature : $-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$
- Operating Humidity : 5% ~ 100%
- Max. Operating Altitude : 5,000 meters

Application

- Bonding with communication lines and internal and external brain protection facilities
- Prevent introduction of surge through communication lines to facilities
- Installation: The SPD shall be connected in series to the input/output terminals of the terminal box or the unit and shall be installed in the form of per pair or line maintenance.

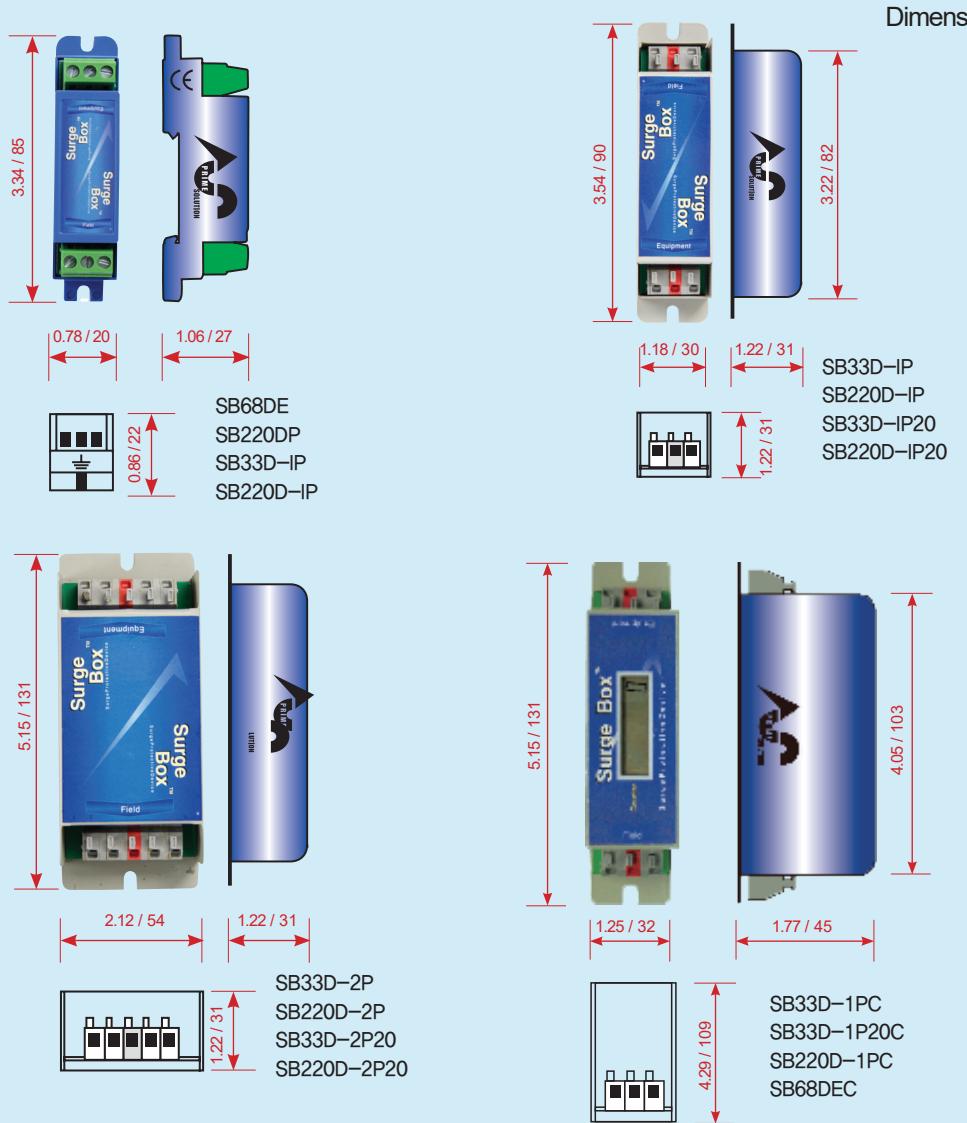
Specification

Model No.	SB68DE	SB220DP	SB220DP-H		
Connection Method	Serial Connection Type (Wall mounting & Din-rail Mounting)				
Rated System Voltage	~ 200 Vdc				
Frequency	~ 10 MHz				
Impulse C1, C2(1.2/50 μ s,8/20 μ s), D1(10/350 μ s)	C2 : 10 kV / 5 kA D1 : 2 kA				
Total Discharge Current (8/20 μ s)	10 kA / total				
Max. Surge Current Capacity	~ 5 A				
Protection Mode	X1 – X2 (Line to Line), X – C (Line to Shield)				
MCOV	200 Vdce				
VPR (Vpk)	X1 – X2 < 60 V X1 – C, X2 – C < 80 V	X1 – X2 < 200 V X1 – C, X2 – C < 200 V			
Response Time	< 25 nano-seconds				
Insertion Loss	< 0.3 dB				
Product Weight(lb/g)	0.070 lb / 32 g				

Model No.	SB33D-1P	SB33D-1P20	SB33D-1P25	SB33D-2P	SB33D-2P20	SB220D-1P		
Connection Method	Serial Connection Type (Wall mounting & Din-rail Mounting)							
Rated System Voltage	~ 24 Vdc				~ 250 Vdc			
Frequency	~ 10 MHz							
Impulse C1, C2(1.2/50 μ s,8/20 μ s), D1(10/350 μ s)	C2 : 4 kV / 2 kA							
Max. Surge Current Capacity	10 kA / Mode	20 kA / Mode	25 kA / Mode	10 kA / Mode	20 kA / Mode	10 kA / Mode		
Protection Mode	X1 – X2 (Line to Line), X – C (Line to Shield)							
MCOV	64 Vdc			277 Vdc				
VPR (Vpk)	X1 – X2 ≤ 120 V X1 – C, X2 – C ≤ 120 V					X1 – X2 ≤ 600 V X1 – C, X2 – C ≤ 600 V		
Response Time	< 25 nano-seconds							
Insertion Loss	< 0.3 dB							
Product Weight(lb/g)	0.070 lb / 32 g	0.074 lb / 34 g	0.518 lb / 235 g	0.522 lb / 237 g	0.070 lb / 32 g	0.070 lb / 32 g		

Model No.	SB33D-1PC	SB33D-1P20C	SB220D-1PC	SB68DEC
Connection Method	Serial Connection Type (Wall mounting & Din-rail Mounting)			
Rated System Voltage	~ 24 Vdc		~ 250 Vdc	~ 68 Vdc
Frequency	~ 10 MHz			
Impulse C1, C2(1.2/50 μ s,8/20 μ s), D1(10/350 μ s)	C2 : 4 kV / 2 kA			C2 : 10 kV / 5 kA D1 : 2 kA
Max. Surge Current Capacity	10 kA / Mode	20 kA / Mode	10 kA / Mode	10 kA / Mode
Protection Mode	X1 – X2 (Line to Shield), X – C (Line to Shield)			
MCOV U_c	25.2 Vdc		277 Vdc	64 Vdc
VPR (Vpk)	X1 – X2 ≤ 120 V X1 – C, X2 – C ≤ 120 V		X1 – X2 ≤ 600 V X1 – C, X2 – C ≤ 600 V	X1 – X2 ≤ 60 V X1 – C, X2 – C ≤ 60 V
Response Time	< 25 nano-seconds			
Insertion Loss	< 0.3 dB			
Product Weight(lb/g)	0.440 lb / 200 g			

Dimension



Line Application

- Telephone Lines (SB220D – Series only)
- ISDN, ADSL, T1, E1
- Leased Line / 4–20mA
- RS232
- RS422 / 485
- 24Vdc Lines



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