

**DATA SHEET**

## SPD with Single Protection Mode

**RayDat SCL-2 Series****C1 • C2 • C3**

IEC/EN Category: C1/C2/C3 (see Technical Data)

Mode of Protection: Transverse

Fine Protection: Bi-directional TVS Diode

Voltages: 5, 12, 24, 60V DC

Frequency Range: Up to 1.4MHz

Surge Discharge Ratings:  $I_n$ : up to 500A

Series Load Current: 10A

Enclosure: DIN 43880 1/3TE, DIN Rail Mount

Terminals: Stranded to 4 mm<sup>2</sup>

Housing: Compact Design

Compliance: IEC/EN 61643-21

The RayDat SCL-2 Series has been developed to protect data transmission circuits or low voltage alarm circuits such as fire or security.

They only provide fine protection using a high speed, bi-directional, silicon stage.

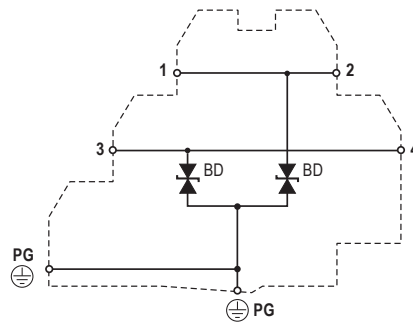
Where necessary, the SCL-2 may be used with a higher energy coarse protection unit such as the SUR-2-110 series.

**Technical Data**

SCL-2 Series		5	12	24	60
<b>Electrical</b>					
Type per IEC/EN 61643-21		C1/C2/C3	C1/C3	C1/C3	C3
Lines Protected		1 (2 Conductors)			
Nominal Operating Voltage (DC)	$U_n$	5V	15V	24V	60V
Maximum Continuous Operating Voltage (DC)	$U_c$	6V	15V	28V	64V
Rated Load Current at 25°C	$I_L$	10A			
Nominal Discharge Current (8/20 $\mu$ s)	$I_n$	500A	500A	250A	100A
Residual Voltage at $I_n$ (8/20 $\mu$ s)	$U_{res}$	<20V	<39V	<65V	<150V
Rated Spark Overvoltage	(Line-Ground)	8-10V	15-19V	30-36V	67-85V
	(Line-Line)	16-20V	30-38V	60-72V	134-170V
Response Time Overvoltage Protection	$t_A$	< 1 ns			
Insulation Resistance of the Protection	$R_{iso}$	$\geq 6 K\Omega$	$\geq 15 M\Omega$	$\geq 28 M\Omega$	$\geq 64 M\Omega$
Serial Resistance per Path	$R$	<0.1 $\Omega$			
Transverse Capacitance	$C$	<7.0 nF	<3.0 nF	<1.0 nF	<0.5 nF
Cut-off Frequency	$f_G$	0.6MHz	0.9MHz	1.4MHz	3MHz
<b>Mechanical</b>					
Temperature Range		-40 °F to +176 °F [-40 °C to +80 °C]			
Terminal Cross Section Multi-strand (max.)		Stranded to 12 AWG [4 mm <sup>2</sup> ]			
Terminal Screw Torque		4.5 lbf-in [0.5Nm]			
Degree of Protection IEC/EN 60529		IP 20 (built-in)			
Housing Material		Thermoplastic; Beige; Extinguishing Degree V-0			
Mounting IEC/EN 60715		35mm DIN Rail			
<b>Order Information</b>					
Order Code		5	12	24	60
SCL-2-xx		7045.16	7045.17	7045.18	7045.19

## RayDat SCL-2 Series

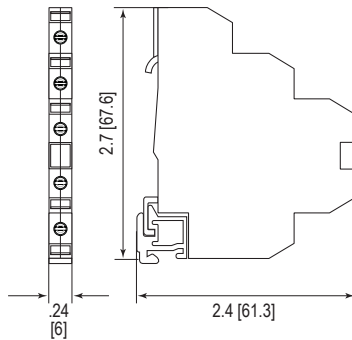
### Internal Configuration



#### Legend

BD Bi-directional TVS Diode  
PG Protective Grounding

### Dimensions & Packaging



SCL-2 Series	5	12	24	60
<b>Dimensions</b>				
Weight per Unit		.91 oz [26g]		
Dimensions DIN 43880		1/3 TE		
Packaging Dimensions (Single Unit)		3.5 x 5.9 x .3" [90 x 150 x 8mm]		
Minimum Package Quantity		40 pieces		

inches  
[mm]

Information contained in this document is subject to change at any time without notice.

RoHS  
COMPLIANT  CE

**Raycap**

www.raycap.com

© 2018 Raycap All rights reserved.  
G29-00-035 180411