SurgePOD™

Standard and Universal Surge Protective Device Modules



Universal Modules Shown

Description

Bussmann Standard and Universal SurgePOD modules are PCB-mountable for original equipment applications.

Universal modules are primarily differentiated from the Standard modules by having consistent terminal spacing dimensions on all Maximum Continuous Operating Voltage (MCOV) ratings.

This consistent terminal spacing eliminates the need for OEMs to maintain multiple PCB designs.

Standard modules have two available terminal lengths and spacing dimensions vary by MCOV rating (see Standard module dimensions for details).

When a surge condition exceeds either the Standard or Universal SPD module's MCOV, the patented Metal Oxide Varistor (MOV) technology becomes conductive to safely shunt the surge to ground.

The same MOV technology also eliminates the need for additional fusing in UL applications by safely disconnecting the SPD module upon reaching an overvoltage breakdown condition.

All Standard or Universal SPD modules are UL Recognized 1449 3rd Edition for installation in Type 1 or Type 2 surge protective devices.

Optional remote contact signaling is accomplished with a Normally Open (NO) microswitch that closes upon the module reaching an overvoltage breakdown condition.

Optional local visual indication is accomplished with indicating tabs that protrude through the device's top upon the module reaching an overvoltage breakdown condition.

Catalog symbols

- SPOD (Standard module)
- SPODU (Universal module)

Ratings

See ratings table

Agency information

- UL Recognized, 1449 3rd Edition Type 1 Surge Protective Device; E340782

Flammability rating

- UL 94V0

Terminal material

- Nickel-plated copper

Storage and operating temperature range

- -25°C to +85°C

Traceability

- Each SurgePOD SPD module is marked with a serial number for identification and tracking

Options

- Remote contact signaling is accomplished with a Normally Open (NO) microswitch that closes upon the module reaching an overvoltage breakdown condition.
- Local visual indication is accomplished with indicating tabs that protrude through the device's top upon the module reaching an overvoltage breakdown condition.

Packaging

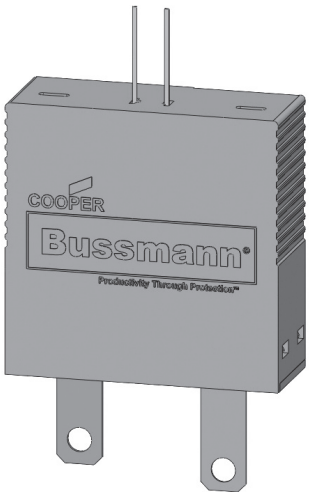
- 200 units per master pack

Additional information

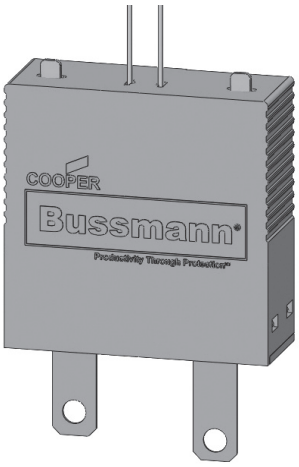
- The SurgePOD module may be damaged by excessive mechanical shock or rough handling. To ensure integrity of finished device, do NOT install any SurgePOD module that was dropped or abused during assembly.
- Suitability for final application of a SurgePOD module to be determined by the OEM.

Optional Local Visual Indication Tabs

Standard and Universal modules



SurgePOD device under normal operation.

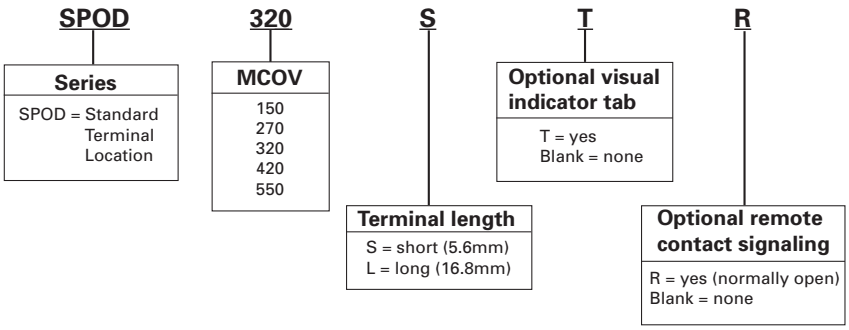


Local visual indication tabs exposed upon reaching an overvoltage breakdown condition.

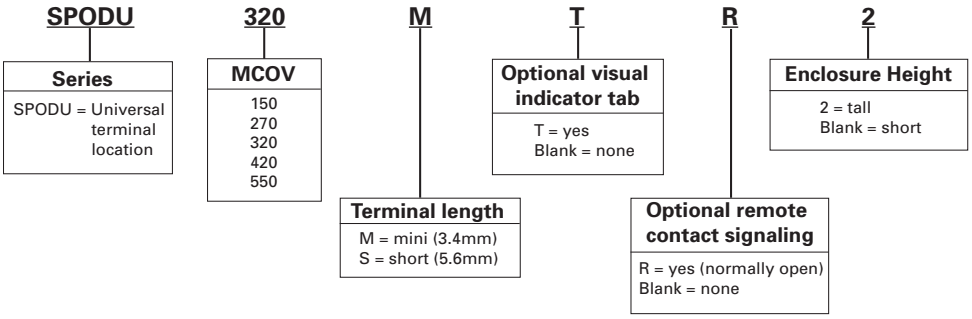
Specifications for SurgePOD Standard and Universal Modules

Color Code	Blue	Green	Yellow	Red	Brown
Maximum Continuous Operating Voltage MCOV (V_{rms})	**150V**	**270V**	**320V**	**420V**	**550V**
Nominal system voltage @ 50/60Hz (V_{rms})	120V	220V	277V	347V	480V
Nominal discharge current rating 8/20µs (I_n)	20kA	20kA	20kA	20kA	20kA
Max discharge current rating 8/20µs (I_{max})	50kA	50kA	50kA	50kA	50kA
Short-Circuit Current Rating (SCCR)	200kA	200kA	200kA	200kA	200kA
Voltage Protection Rating (VPR)	600V	900V	1200V	1500V	1500V

Standard SurgePOD Module Catalog Number System

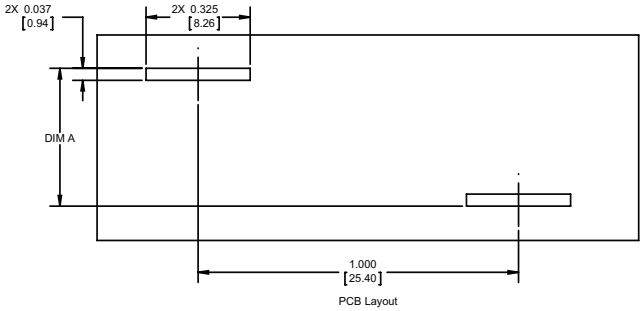


Universal SurgePOD Module Catalog Number System



PCB Layouts

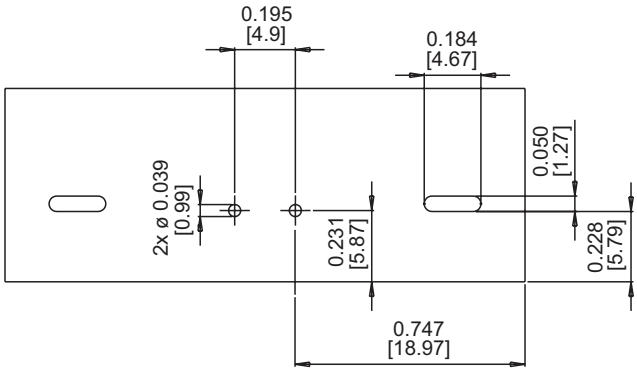
Standard & Universal terminal PCB layout



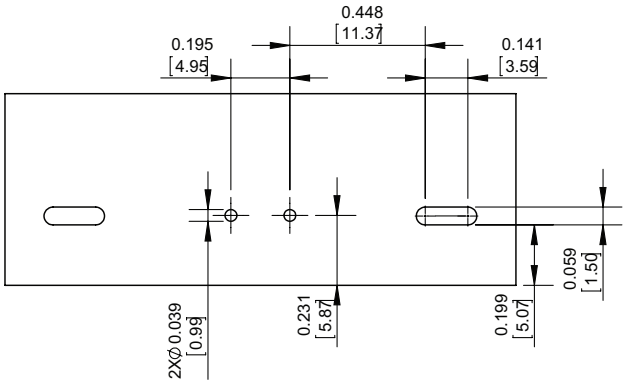
PCB "A" Dimension - in (mm)

SPOD (Standard module)		SPODU (Universal module)	
Part Number	DIM A ±0.030 (±0.76)	Part Number	DIM A ±0.030 (±0.76)
SPOD150XXX	0.339 (8.61)	SPODU150XXX	0.410 (10.42)
SPOD270XXX	0.377 (9.58)	SPODU270XXX	0.399 (10.14)
SPOD320XXX	0.377 (9.58)	SPODU320XXX	0.399 (10.14)
SPOD420XXX	0.424 (10.77)	SPODU420XXX	0.400 (10.16)
SPOD550XXX	0.425 (10.80)	SPODU550XXX	0.402 (10.21)

SPOD Standard microswitch terminal PCB layout

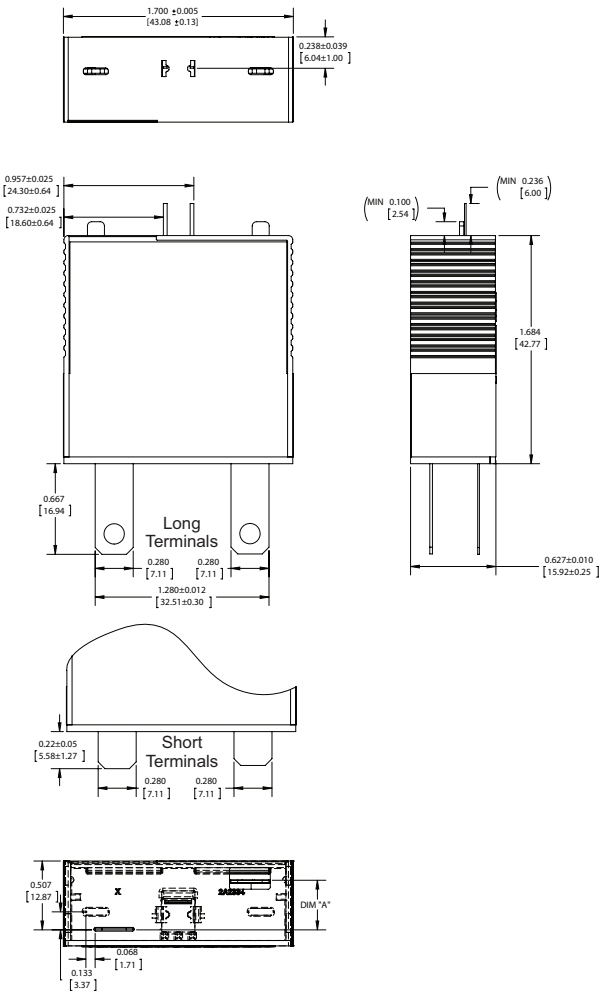


SPODU Universal microswitch terminal PCB layout



Standard module dimensions - in [mm]

Tolerance is ± 0.005" [0.13mm] unless otherwise stated.

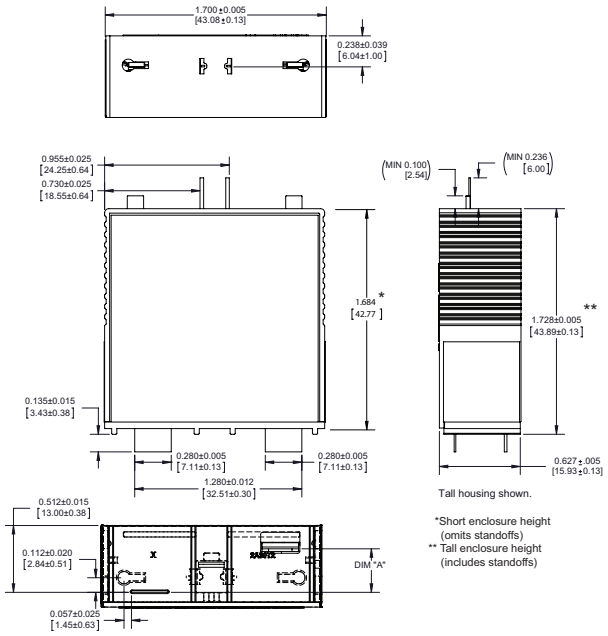


SPOD Standard lead spacing dimension A

Part Number	"A"	
	Min	Max
SPOD150XXX	7.08	8.52
SPOD270XXX	8.01	9.51
SPOD320XXX	7.98	9.52
SPOD420XXX	9.25	10.64
SPOD550XXX	9.26	10.72

Universal module dimensions - in [mm]

Tolerance is ± 0.005" [0.13mm] unless otherwise stated.



SPODU Universal lead spacing dimension A

Part Number	"A" ± 0.03 [0.76]
SPODU150XXX	0.410 [10.42]
SPODU270XXX	0.399 (10.14)
SPODU320XXX	0.399.[10.14]
SPODU420XXX	0.400 [10.16]
SPODU550XXX	0.402 [10.21]

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