



SURGE PROTECTION MODULES

5 PIN - LOW VOLTAGE - SOLID STATE MODULE SERIES

4B3S-75 & 3B3S-30

5 PIN - Solid State - Surge Protection Module



Product Specifications

UL 497 Primary Protector for Communication Circuits

The low voltage series is a premium series 5 PIN solid state protector module that is designed to provide superior transient and power fault protection for most standard telephone line applications.

These solid state modules are suited to applications that require the protection of sensitive telephone equipment due to their nanosecond reaction time.

The characteristics of the solid state protector are far superior to gas tube technology in speed and are virtually immune to overshoot, aging and failure due to repeated tripping.

The 4 - Series features PTC (positive temperature coefficient) technology. These optional self-resetting current limiters provide effective protection from 'sneak current' faults. The PTC is vastly superior to the heat coil solution, which requires that the module be replaced after each 'sneak current' event.

Nanosecond Response Time

Internal Failsafe Mechanism that Permanently
Grounds the Module Under Sustained High Current
Conditions

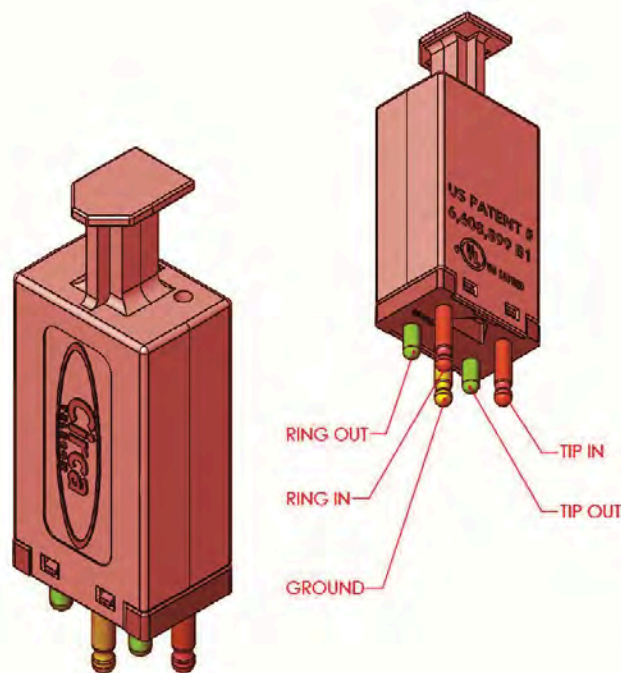
Balanced Operation

UL Listed and RUS Approved

Design to Exceed Telcordia Standards

Integrated Test Points

ISO 9001 Certified Manufacturer



Ordering Information

Model Number	Stock Code	Application	Color	Clamping Voltage
4B3S-75	770116	Equipment Protection for 48V Digital Voice Lines (4 Series has PTC)	Red	75V
3B3S-30	770102	Equipment Protection for 24V Digital Voice and Low Speed Data Lines	Red	30V

RUS Approved Material - 2011 Edition RUS Publication 344-2 - Section 4.1.3 and 4.2.1

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Module

DC Break Over - @ $100V/\mu S$

Peak Pulse Current ⁽¹⁾

@ $8 \times 20 \mu S$

@ $10 \times 160 \mu S$

@ $10 \times 1000 \mu S$

Response Time

Holding Current

Surge Life ⁽²⁾

@ $10A$ @ $10 \times 1000/\mu S$

@ $100A$ @ $10 \times 1000/\mu S$

@ $65A$ rms, 11 cycles, 130A

@ $10A$ rms, 1 sec, 20A

Capacitance

$1V$ rms @ $1KHz$, 20V DC

Insulation Resistance

@ 50V DC

Fail-Safe Operation

@ $1.0A$ rms

@ $5.0A$ rms

@ $20A$ rms

@ $60A$ rms

Current Limiters (4 Series with PTC)

Hold Current @ $20^\circ C$

Line Series Resistance

3B3S-30

30V

200A

150A

75A

< 5 nanoseconds

50 mA

Unlimited Operations

> 300 Operations

> 60 Operation

> 20 Operations

< 200 pF

100M Ω

< 50 Seconds

< 15 Seconds

< 10 Seconds

< 3 Seconds

N/A

N/A

4B3S-75

75V

250A

150A

75A

< 5 nanoseconds

150 mA

Unlimited Operations

> 300 Operations

> 60 Operation

> 20 Operations

< 90 pF

100M Ω

< 50 Seconds

< 15 Seconds

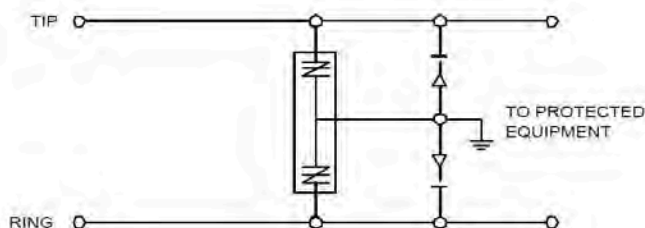
< 10 Seconds

< 3 Seconds

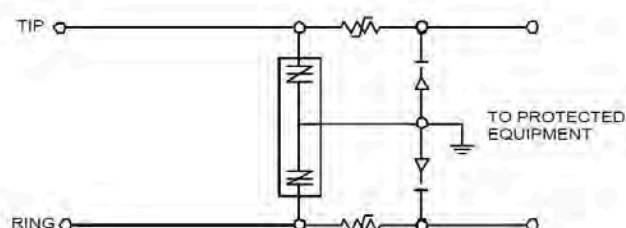
145 mA

4 - 6 Ω

3B3S-30 - Symmetrical



4B3S-75 - Symmetrical





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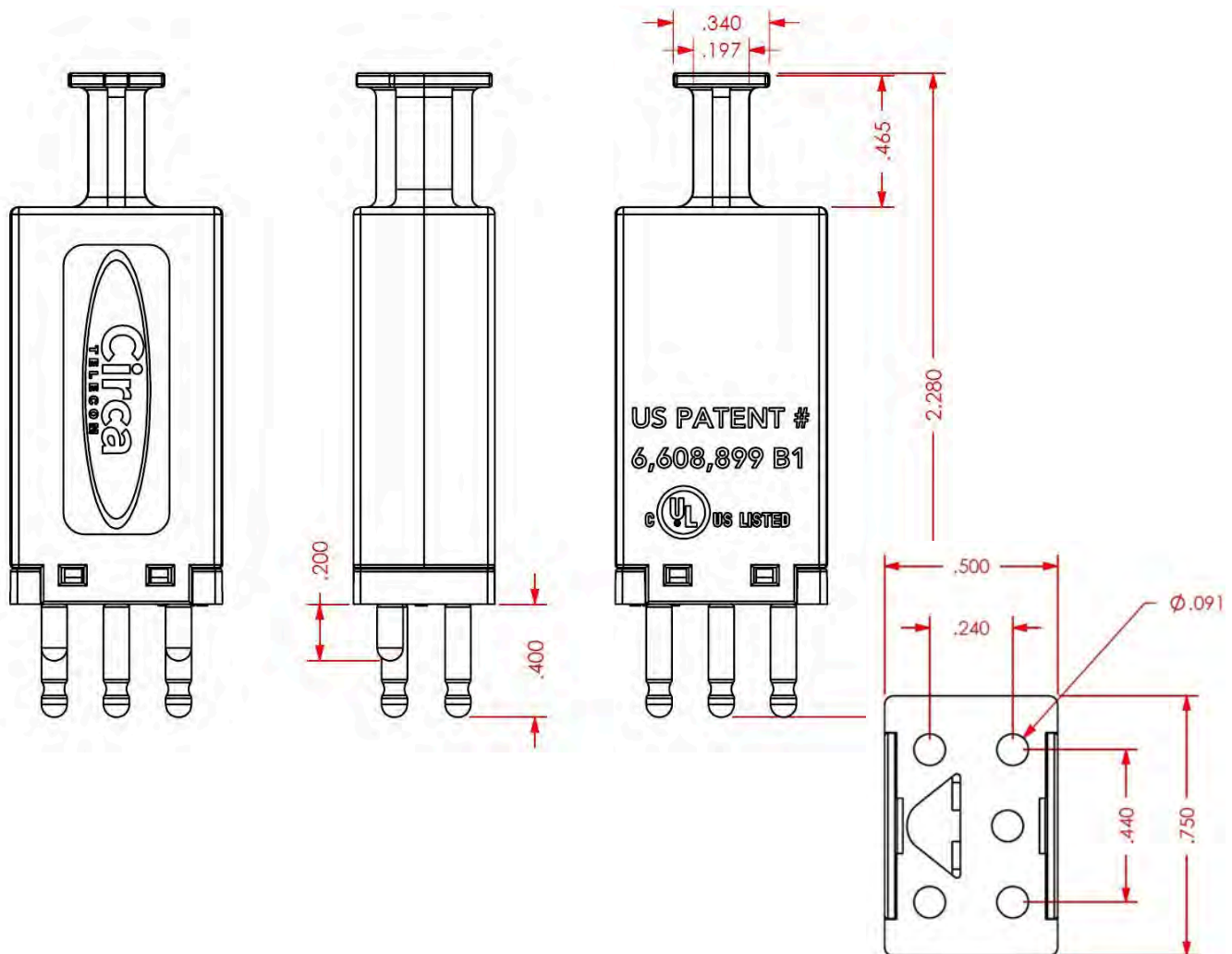
4B3S-75 & 3B3S-30

5 PIN - Solid State - Surge Protection Module



Physical Dimensions

UL 497 Primary Protector for Communication Circuits



Notes

⁽¹⁾ Total surge rating is 2x listed with respect to ground during simultaneous surge.

⁽²⁾ Meets Bellcore TR-NWT-000974 service life requirements.

Pin alloy refers to tip and ring pins. Unless otherwise noted, all ground pins are tin.

Previous Model Numbers: C3B3S, C3B3S-30, C4B3S-75(PTC)

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