

## 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

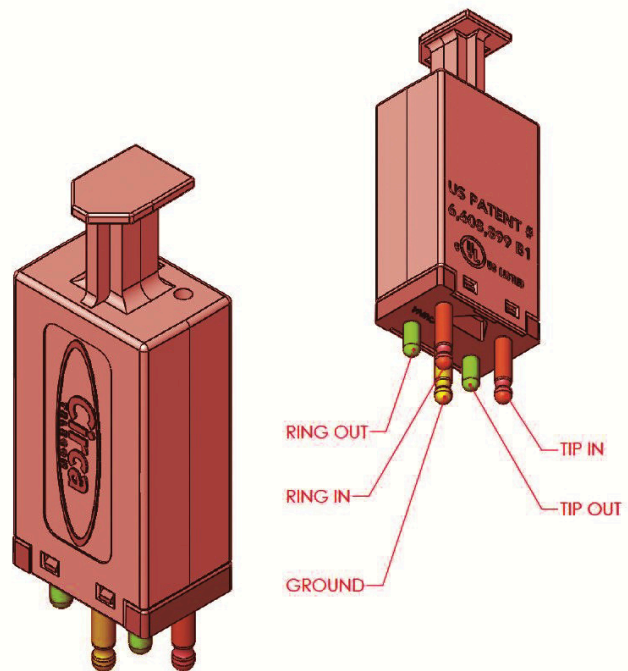
Balanced Operation

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

Circa Telecom, Inc © 2011 - Version 1.02

## 4B3S-75 & 3B3S-30

5 PIN - Solid State - Surge Protection Module

### Product Specifications

#### UL 497 Primary Protector for Communication Circuits

#### Module

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

**Peak Pulse Current** <sup>(1)</sup>

@ 8 x 20  $\mu$ S

@ 10 x 160  $\mu$ S

@ 10 x 1000  $\mu$ S

**Response Time**

**Holding Current**

**Surge Life** <sup>(2)</sup>

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

@ 100A @ 10 x 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° 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  $\Omega$

< 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  $\Omega$

< 50 Seconds

< 15 Seconds

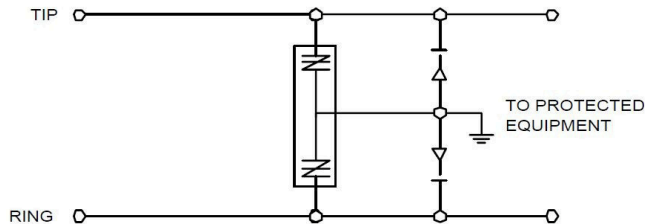
< 10 Seconds

< 3 Seconds

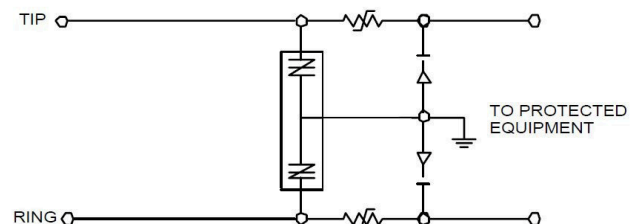
145 mA

4 - 6  $\Omega$

4B3S-75 - Symmetrical



3B3S-30 - Symmetrical





## SURGE PROTECTION MODULES

5 PIN - LOW VOLTAGE - SOLID STATE MODULE SERIES

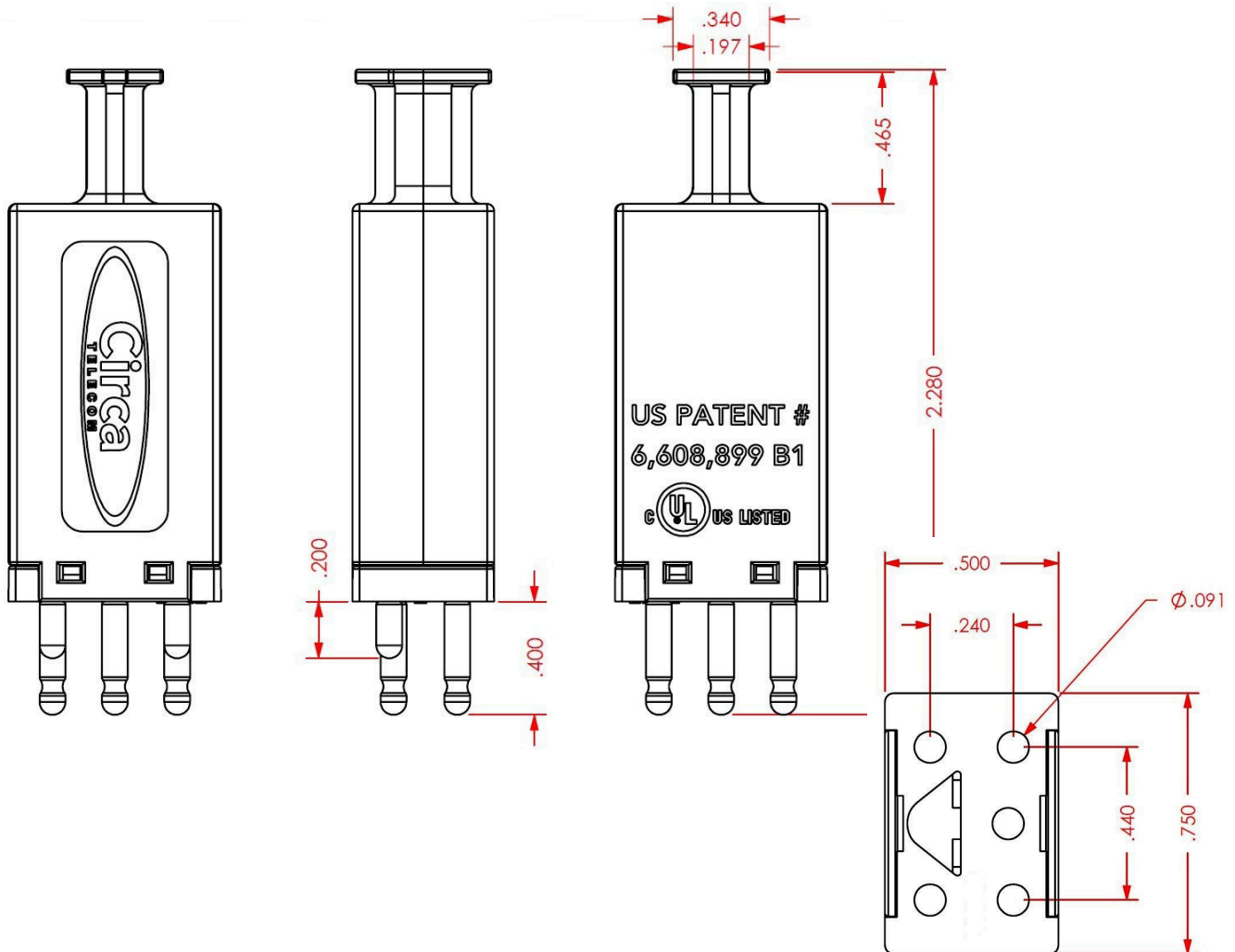
### 4B3S-75 & 3B3S-30

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)

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

Circa Telecom, Inc © 2011 - Version 1.02