SPECIFICATIONS:

FORWARD WORKING VOLTAGE:	+ 30 volts dc nominal with suffix AAA = 300
	115 volts ac nominal with suffix AAA = 111

The forward voltages shown are the nominal, refer to the clamping chart for the maximum values.

REVERSE WORKING VOLTAGE:	- .7 volts dc nominal with suffix BBB = R70
	- 30 volts dc nominal with suffix BBB = 030
	115 volts ac nominal with suffix CCC = 111

The reverse voltages shown are the nominal, refer to the clamping chart for the maximum values.

RATED OUTPUT CURRENT:	500 ma. maximum with suffix CCC = 501
1000 ma. maximum with suffix CCC = 102	2000 ma. maximum with suffix CCC = 202
3000 ma. maximum with suffix CCC = 302	5000 ma. maximum with suffix CCC = 502
8000 ma. maximum with suffix CCC = 802	10000 ma. maximum with suffix CCC = 103

The 8000 ma. (suffix CCC = 802) and the 10000 ma. (suffix CCC = 103) output current models are not available for 115 volt ac operation (suffix AAA and BBB = 111).

OUTPUT FUSE RATING:	1 amp at 250 volts with suffix CCC = 501
2 amps at 250 volts with suffix CCC = 102	3 amps at 250 volts with suffix CCC =202
4 amps at 250 volts with suffix CCC = 302	7 amps at 250 volts with suffix CCC = 502
12 amps at 65 volts with suffix CCC = 802	15 amps at 65 volts with suffix CCC = 103

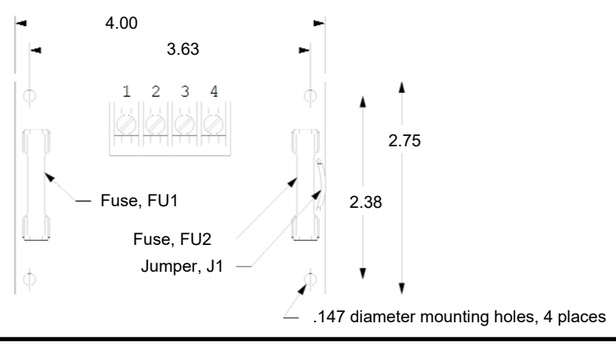
The fuses are type 3AB, very fast acting for protection of solid state devices. Replace with Littlefuse type 322 or equal.

! ! ! ! ! WARNING ! ! ! ! !

Do not substitute any other fuse in place of those specified above. Fuses other than those specified can cause the connected equipment to catch fire and/or subject the operator to lethal voltages. Do not install fuses in conductors that are connected to earth ground.

OPERATING TEMPERATURE RANGE:	- 40 degrees C to + 75 degrees C.

OUTLINE DIMENSIONS:



GENERAL DESCRIPTION:

This transient suppression and reverse polarity protection module is designed to limit the voltage and current that can be applied to equipment connected to its output terminals. The AC power line or bipolar low voltage DC models will provide symmetrical clamping in both directions. The single polarity low voltage DC models differ in that they will clamp the applied reverse voltage to less then 2 volts. All of the models contain fast acting fuses for short circuit protection.

This module should be used to protect solid state equipment that is powered from a source that may cause reversed polarity, prolonged overvoltage or damaging transients. The module is typically applied as a suppression device on utility power lines as well as battery powered mobile equipment.

This industrial grade module requires no user adjustments. It features a combination of zener diodes and metal oxide varistors combined with very fast acting fuses to limit the energy at its output terminals. In addition, a power status indicator light is supplied that will illuminate whenever the fuses are intact and the output voltage exceeds the preset minimum.

The circuit board is solder masked. All external power and valve coil connections are made to a barrier type terminal block with #6-32 captive wire clamping plates. All external connections are clearly marked on the board.

PART NUMBERING SYSTEM:

Option identifier suffix groups

Model series identifier

B2666-AAA-BBB-CCC-DD

PART NUMBER SUFFIX GROUP EXPLANATION	
SUFFIX	**DESCRIPTION**
AAA	Minimum forward working voltage
BBB	Maximum reverse working voltage
CCC	Maximum working current
DD	Factory installed option identifier

Parts shipped from the factory will have the correct alphanumeric option identifier in place of the suffix letters indicated in the table above.

ORDERING INFORMATION:

Refer to the B2666 model series selection sheet for a complete listing of the currently available models.

DATA SHEET FOR DATATRAN B2666 TRANSIENT SUPPRESSION AND REVERSE POLARITY PROTECTION MODULE

FOR TECHNICAL ASSISTANCE CONTACT
CONIC SYSTEMS INC.
11 REBEL LANE, PORT JERVIS, NY 12771
TEL: (845) 856-4313 FAX (845) 858-2824
www.conicsystems.com

APPLICATION INFORMATION:

MAXIMUM CLAMPING VOLTAGE AND CURRENT: The devices connected to the output of the transient suppression and reverse polarity module are protected against excessive input voltage as well as reversed polarity. The protective devices on the board will limit the maximum output voltage and input currents to the values shown in the table below. The user should note that values given in the table below are based upon data sheet parameters supplied by the component manufactures. Individual power supplies are not tested for clamp conditions. The table values are to be used as guidelines only, actual values may vary from those shown by as much as 20%.

All of the data given in the table below, is based upon the positive voltage input fuse clearing in 8.3 msec. with the working voltage and current applied to the modules input. Fuses that allow prolonged overvoltage or reversed polarity conditions may cause irreparable damage to the module.
The .7 volt value in the table is a nominal value and is obtained with reverse polarity applied to the input terminals.

VOLTAGE	CURRENT	VOLTAGE	CURRENT
0.7 volts dc	0.5 amps	.85 volts dc	2.0 amps
0.7 volts dc	1.0 amps	1.0 volts dc	6.0 amps
0.7 volts dc	2.0 amps	1.1 volts dc	14.0 amps
0.7 volts dc	3.0 amps	1.2 volts dc	16.0 amps
0.7 volts dc	5.0 amps	1.4 volts dc	38.0 amps
0.7 volts dc	8.0 amps	1.8 volts dc	80.0 amps
0.7 volts dc	10.0 amps	2.0 volts dc	100.0 amps
30.0 volts dc	0.5 amps	38.2 volts dc	2.0 amps
30.0 volts dc	1.0 amps	36.6 volts dc	6.0 amps
30.0 volts dc	2.0 amps	37.3 volts dc	14.0 amps
30.0 volts dc	3.0 amps	37.5 volts dc	16.0 amps
30.0 volts dc	5.0 amps	39.5 volts dc	38.0 amps
30.0 volts dc	8.0 amps	43.4 volts dc	80.0 amps
30.0 volts dc	10.0 amps	45.3 volts dc	100.0 amps
115.0 volts ac	0.5 amps	205.4 volts peak	2.0 amps
115.0 volts ac	1.0 amps	216.2 volts peak	6.0 amps
115.0 volts ac	2.0 amps	237.7 volts peak	14.0 amps
115.0 volts ac	3.0 amps	243.0 volts peak	16.0 amps
115.0 volts ac	5.0 amps	302.3 volts peak	38.0 amps

MAXIMUM PULSE POWER RATING: The module is capable of handling the pulse power rating shown in the table below. These ratings are non-repetitive and must not be applied more than 3 times per minute. The ratings are based on an ambient temperature of + 30 degrees C. They must be reduced to 80% of the values shown at ambient temperatures of + 55 degrees C. These ratings are the absolute maximum and may cause the clamp voltage to exceed the values in the table above.

STATUS INDICATOR: The green indicator lamp, located on the circuit board, will illuminate when the fuses are intact and the applied power is within

MAXIMUM POWER	PULSE WIDTH		MAXIMUM POWER	PULSE WIDTH
2250 watts	10.0 msec.		67500 watts	10.0 usec.
9000 watts	1.0 msec.		225000 watts	1.0 usec.
24750 watts	100 usec.			

specified limits. The brightness of the indicator may dim with low input voltages. This is normal and does not indicate a fault condition or failure of the module.

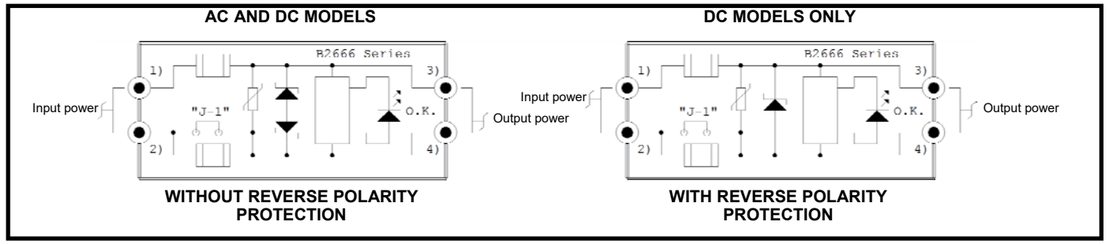
APPLICATION INFORMATION, CON'T:

JUMPER J1 FUNCTION: On all modules shipped from the factory jumper "J1" is installed in parallel with fuse "FU2". This fuse is installed in series with the connection from terminal number 2 to terminal number 4. When terminal number 2 is connected to earth ground, the jumper must remain in position to avoid breaking the equipment ground connection should fuse FU2 blow. In the event that the equipment is operating with terminal number 2 connected to earth ground, fuse FU2 is bypassed and may be removed or used as a replacement for fuse FU1.

INPUT POWER WIRING: All of the modules shipped from the factory are set up to operate with the connection to terminal number 2 at earth ground potential. In the event that terminal number 2 is not connected to earth ground, jumper J1 should be removed. Refer to your local electrical and fire codes for details.

! ! ! ! ! WARNING ! ! ! ! !
Do not install fuses in conductors that are connected to earth ground.

FUNCTIONAL DIAGRAM:



APPLICATION EXAMPLES: