



SOLID STATE RELAYS

CLASS 70S2 MINIATURE SSR's

(FORMERLY GRAYHILL)

2.5 Amp to 25 Amp Outputs

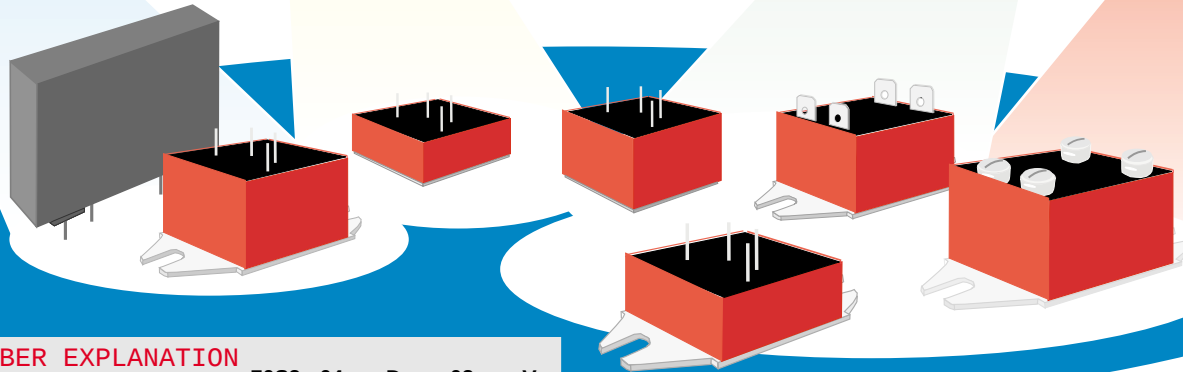
CLASS 6 SSR's

2.5 Amp to 125 Amp Outputs

NEW!

- * GRAYHILL SSR's.
- * CLASS 6 660 VOLT.
SPST-N.O.
- * DUAL OUTPUT
DPST-N.O.
- * CLASS 6 CLEAR
SAFETY COVER.

SOLID STATE RELAYS



PART NUMBER EXPLANATION

	70S2-	04-	D-	03-	V
Optically Isolated Solid State Relay					
Control Voltage					
01 = 2 - 15 VDC, DC/DC Relays					
02 = 9 - 30 VDC, DC/DC Relays					
03 = 3 - 30 VDC, 25 A mini - puck					
04 = 3 - 30 VDC, DC/AC Relays					
05 = 6 - 30 VDC, DC/AC Relays					
Nominal Voltage					
A = 3-60 VDC B = 120 VAC					
C = 240 VAC D = 24 VAC					
Max Current Rating					
02 = 2.5 A 04 = 4 A 06 = 6 A 12 = 12 A					
03 = 3 A 05 = 5 A 10 = 10A 25 = 25 A					
Package Style					
F, H, L, M, N, S or V. See selection below.					

BENEFITS - CLASS 70S2 SSR's

- * EXCELLENT TRANSIENT PROTECTION
- * HIGH SURGE CURRENT CAPABILITY
- * OPTICALLY ISOLATED
- * HIGH BLOCKING VOLTAGE
- * EXTREMELY LONG LIFE
- * MINIATURE BUT MIGHTY; UP TO 25 AMP SWITCHING

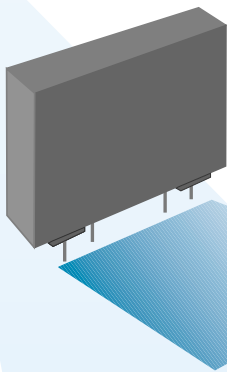
DC INPUT-AC OUTPUT

MAX. LOAD CURRENT	CONTROL VOLTAGE	NOMINAL LOAD VOLTAGE	DESCRIPTION AND FEATURES	STYLE
2.5 A	3-30 or 6-30 VDC	24, 120 or 240 VAC	MICRO CUBE RELAY, ONLY 0.500" HIGH	H
3 A	3-32 or 6-32 VDC	24, 120 or 240 VAC	SINGLE IN - LINE PACKAGE, USES ONLY 0.680 SQ. INCHES BOARD AREA	V
4 A	3-30 or 6-30 VDC	24, 120 or 240 VAC	MINI CUBE RELAY, PC MOUNT	F
6 A	3-30 or 6-30 VDC	120 or 240 VAC	USE HEAT SINK OR PANEL MOUNT	L
6 A	3-30 or 6-30 VDC	120 or 240 VAC	USE HEAT SINK OR PANEL MOUNT	M
6 A	3-30 or 6-30 VDC	120 or 240 VAC	MINI PUCK RELAY, PANEL MOUNT, FIT/FUNCTION	N
6 A	3-30 or 6-30 VDC	120 or 240 VAC	REPLACEMENTS FOR LARGER HOCKEY PUCK STYLES, TAP TERMINALS	S
6 A	3-30 or 6-30 VDC	120 or 240 VAC	MINI PUCK RELAY, PANEL MOUNT, FIT/FUNCTION	S
6 A	3-30 or 6-30 VDC	120 or 240 VAC	REPLACEMENTS FOR LARGER HOCKEY PUCK STYLES, SCREW TERMINALS	S
10 A	3-30 or 6-30 VDC	120 or 240 VAC	USE HEAT SINK OR PANEL MOUNT	M
12 A	3-30 or 6-30 VDC	120 or 240 VAC	MINI PUCK RELAY, PANEL MOUNT, FIT/FUNCTION	N
12 A	3-30 or 6-30 VDC	120 or 240 VAC	REPLACEMENTS FOR LARGER HOCKEY PUCK STYLES, TAP TERMINALS	N
12 A	3-30 or 6-30 VDC	120 or 240 VAC	MINI PUCK RELAY, PANEL MOUNT, FIT/FUNCTION	S
12 A	3-30 or 6-30 VDC	120 or 240 VAC	REPLACEMENTS FOR LARGER HOCKEY PUCK STYLES, SCREW TERMINALS	S
25 A	3-30 VDC		MINI PUCK RELAY, PANEL MOUNT, FIT/FUNCTION	S
25 A	3-30 VDC		REPLACEMENTS FOR LARGER HOCKEY PUCK STYLES, SCREW TERMINALS	S

DC INPUT-DC OUTPUT

MAX. LOAD CURRENT	CONTROL VOLTAGE	NOMINAL LOAD VOLTAGE	DESCRIPTION AND FEATURES	STYLE
3 A	3-15 or 9-30 VDC	3 to 60 VDC	SINGLE IN - LINE PACKAGE, USES ONLY 0.680 SQ. INCHES BOARD AREA	V
3 A	3-15 or 9-30 VDC	3 to 60 VDC	MINI CUBE RELAY, PC MOUNT	F
5 A	3-15 VDC	3 to 60 VDC	MINI PUCK RELAY, PANEL MOUNT, FIT/FUNCTION	N
5 A	3-15 VDC	3 to 60 VDC	REPLACEMENTS FOR LARGER HOCKEY PUCK STYLES, TAP TERMINALS	N
5 A	3-15 VDC	3 to 60 VDC	MINI PUCK RELAY, PANEL MOUNT, FIT/FUNCTION	S
5 A	3-15 VDC	3 to 60 VDC	REPLACEMENTS FOR LARGER HOCKEY PUCK STYLES, SCREW TERMINALS	S

STYLE "V"



OUTLINE DIMENSIONS

Dimensions Shown in Inch and (Millimeter).

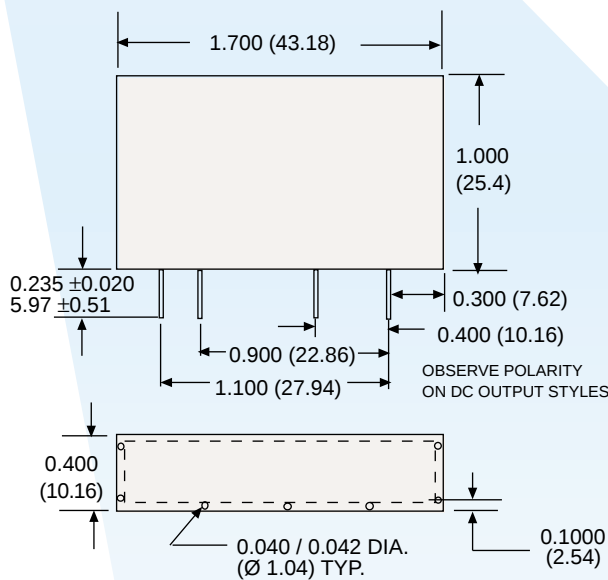


FIGURE 1: Maximum Continuous Current vs. Ambient Temperature

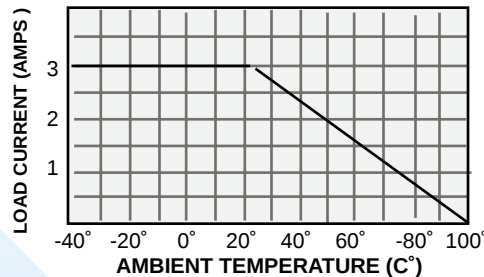


Figure 2: Maximum Peak Surge Current vs. Surge Duration

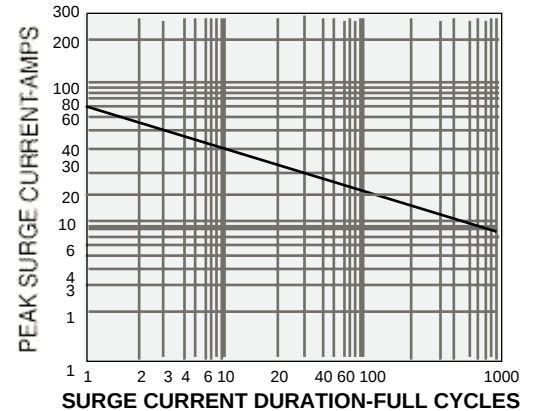


FIGURE 1 CHART INDICATES CONTINUOUS CURRENT TO LIMIT THE JUNCTION TEMPERATURES TO 100° C. INFORMATION IS BASED ON STEADY STATE HEAT TRANSFER IN A 2 CUBIC FOOT SEALED ENCLOSURE.

FIGURE 2 CHART INFORMATION IS BASED ON A SUPPLY FREQUENCY OF 60 HERTZ SINUSOIDAL AND A RESISTIVE OR INDUCTIVE LOAD. APPLICATION OF MAXIMUM SURGE CURRENT MAY NOT BE REPEATED UNTIL THE RELAY TEMPERATURE HAS RETURNED TO ITS STEADY STATE VALUE.

FEATURES

- * SINGLE IN LINE PACKAGE RELAY
- * OPTICALLY ISOLATED
- * PC MOUNT FOR LOADS UP TO 3 AMPS
- * MINIMAL BOARD SPACE REQUIRED
- * TUV RHEINLAND CERTIFIED TO EN60947 - 5 - 1 SAFETY REQUIREMENTS (24VAC, 120 VAC, 240 VAC STYLES.)
- * LIFETIME WARRANTY

INPUT CHARACTERISTICS

Input voltage range:
Max.Reverse Control voltage:
Input current:
Average Input Impedance:

3-32 VDC	6-32 VDC
5 VDC	5 VDC
1.0 -19.0 mA	1.0 -6.0 mA
2000 Ω	6000 Ω

OUTPUT CHARACTERISTICS

Max. Load Current :
Load Voltage Range (VAC):
Minimum Load Current I_{TMIN} (RMS) to maintain "ON":
Maximum Off State Leakage current I_D (RMS):
Maximum On-State Voltage V_T drop:
Maximum off-state dv/dt:
Operating Frequency Range:
One Cycle surge current:
Minimum Peak Blocking voltage:
Turn - On Time (60Hz):
Turn - Off Time (60Hz):

3 Amps
24 V=10-50 V, 120 V=24-140 V, 240 V=24-280 V
65 mA
24 V=4 mA, 120 V=6 mA, 240 V=6 mA
1.5 V Peak Max.
3000 V/ microsecond.
25 Hz to 70 Hz
60 Amps Peak Max.(@ 25°C)
24 V= 200 V, 120 V= 400 V, 240 V= 600 V
8.3 mS Maximum.
8.3 mS Maximum.

MISCELLANEOUS CHARACTERISTICS

Output configuration:
Dielectric Strength V_{ISO} (Input-Output Isolation):
Insulation Resistance :
Operating temperature Range:
Storage temperature Range:
Weight:

Normally Open
3000 V rms. Min.
$10^9 \Omega$
-40°C to +100°C
-40°C to +125°C
19 g.



GENERAL SPECIFICATIONS

"N" & "S" STYLE

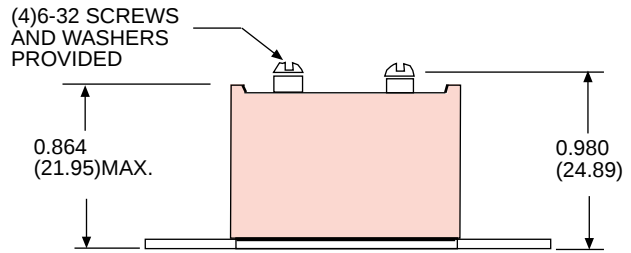
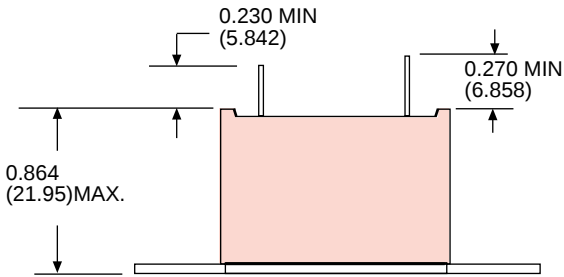


STYLE N

STYLE S

OUTLINE DIMENSIONS

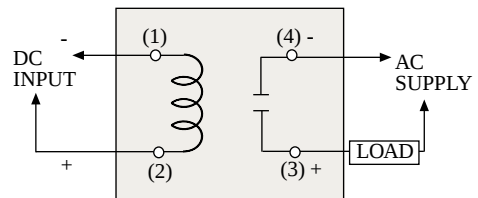
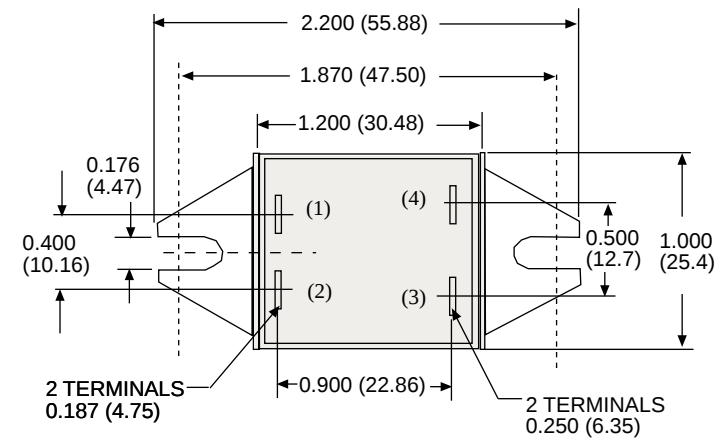
Dimensions shown in Inch and (Millimeter).



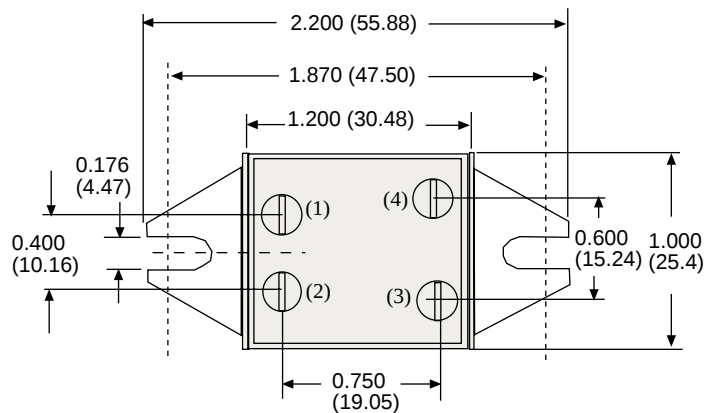
MAXIMUM SCREW TORQUE = 9 IN - LBS

NOTE:

STYLE S IS NOT INTENDED FOR PC BOARD MOUNTING.
CONSULT FACTORY



OBSERVE POLARITY ON DC OUTPUT STYLES



FEATURES

- * MINI PUCK SOLID RELAYS
- * OPTICALLY ISOLATED
- * PANEL MOUNT; UP TO 25 AMP LOADS
- * MOUNTS ON HOCKEY PUCK RELAY CENTERS, YET NEEDS 1/2 THE SPACE
- * SCREW TERMINALS OR PUSH - ON QC TERMINALS
- * LIFETIME WARRANTY

"V" & "S" STYLE

FIGURE 1: Maximum Continuous Current vs. Ambient Temperature

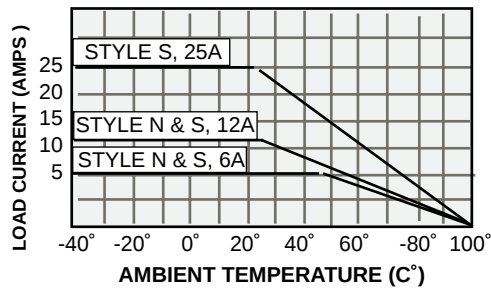
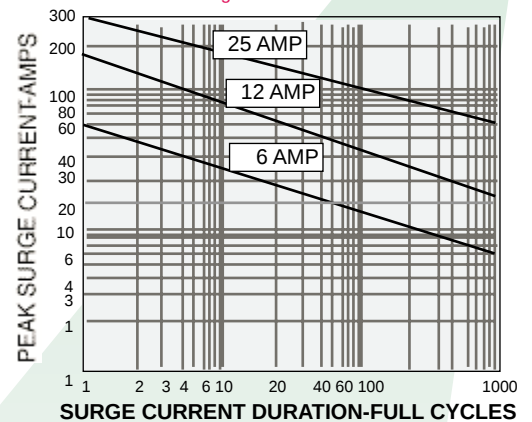


FIGURE 1 CHART INDICATES CONTINUOUS CURRENT TO LIMIT THE JUNCTION TEMPERATURES TO 100° C. INFORMATION IS BASED ON STEADY STATE HEAT TRANSFER IN A 2 CUBIC FOOT SEALED ENCLOSURE.

FIGURE 2 CHART INFORMATION IS BASED ON A SUPPLY FREQUENCY OF 60 HERTZ SINUSOIDAL AND A RESISTIVE OR INDUCTIVE LOAD. APPLICATION OF MAXIMUM SURGE CURRENT MAY NOT BE REPEATED UNTIL THE RELAY TEMPERATURE HAS RETURNED TO ITS STEADY STATE VALUE.

Figure 2: Maximum Peak Surge Current vs. Surge Duration



GENERAL SPECIFICATIONS

INPUT CHARACTERISTICS

Input Voltage Range:	3-30 VDC	6-30 VDC
Max. Reverse Control Voltage:	5 VDC	5 VDC
Input Current:	7.0 -16.0 mA	6.0 -10.0 mA
Average Input Impedance @ 24 VDC Typ.:	1777 Ω	2750 Ω

OUTPUT CHARACTERISTICS

Max. Load Current :	6 , 12 & 25 Amps
Load Voltage Range (VAC):	120 = 24-140 VAC, 240= 24-280 VAC
Minimum Load Current $I_{T\text{MIN}}$ (RMS) to Maintain "ON":	6 Amps = 75 mA, 12 & 25 Amps = 100 mA
Maximum Off State Leakage Current I_o (RMS):	120 V =6 mA, 240 V =6 mA
Maximum On-State Voltage V_T Drop:	1.6 V Peak Max.
Maximum Off-State dv/dt:	3000 V/ microsecond typical.
Operating Frequency Range:	25 Hz to 70 Hz
One Cycle Surge Current:	60, 150 & 300 Amps Peak Max.
Minimum Peak Blocking Voltage:	120 = 400 V, 240 = 600 V
Turn - On Time (60Hz):	8.3 mS Maximum.
Turn - Off Time (60Hz):	8.3 mS Maximum.

MISCELLANEOUS CHARACTERISTICS

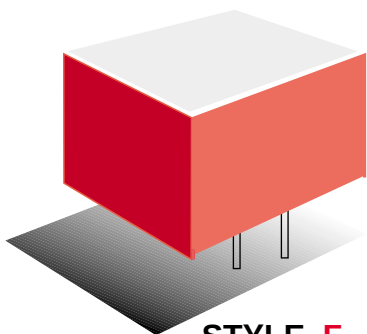
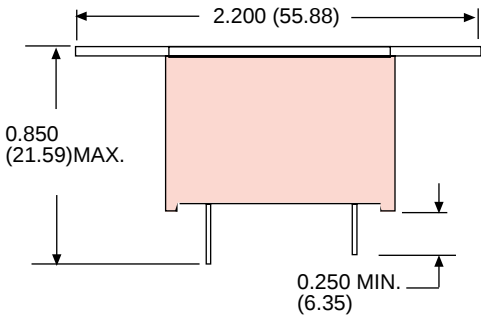
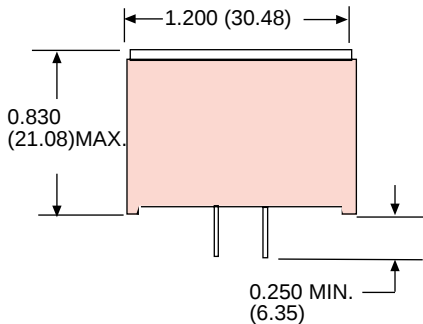
Output Configuration:	Normally Open.
Dielectric Strength V_{ISO} (Input-Output Isolation):	3000 V rms. Min.
Insulation Resistance:	$10^9 \Omega$
Operating Temperature Range:	-40°C to +100°C
Storage Temperature Range:	-40°C to +125°C
Weight:	35 g. Style N, 56 g. Style S Appox.



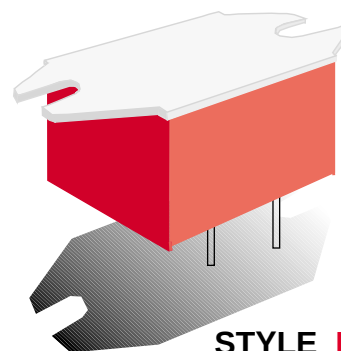
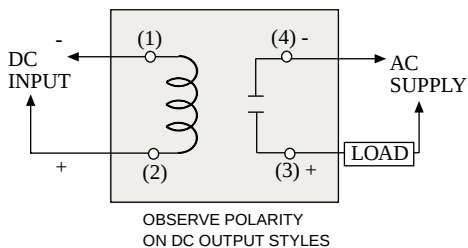
“ F ” & “ M ” STYLE

Dimensions shown in Inch and (Millimeter).

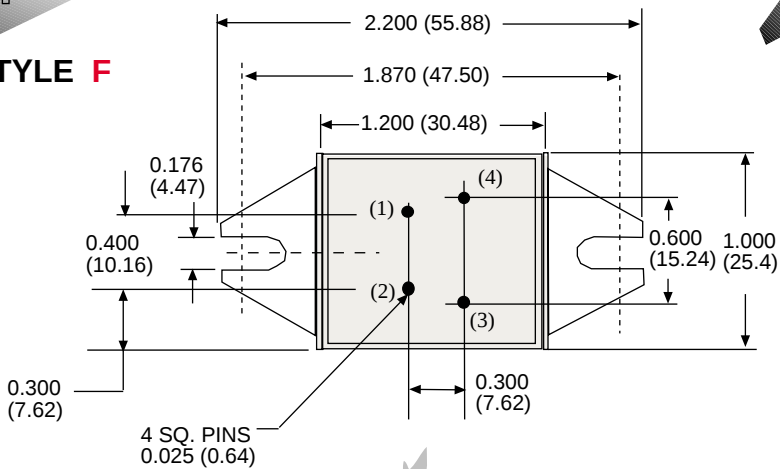
Dimensions shown in Inch and (Millimeter).



STYLE F



STYLE M



FEATURES

- * CUBE RELAYS WITH EXTENDED CURRENT RATINGS
- * PC MOUNT OPTICALLY ISOLATED
- * INTEGRAL HEAT SINK ACCOMMODATES PANEL MOUNT OR ADD-ON HEAT SINK
- * SWITCHES UP TO 4, 6 OR 10 AMP LOADS
- * LIFETIME WARRANTY



FIGURE 1: Maximum Continuous Current vs. Ambient Temperature

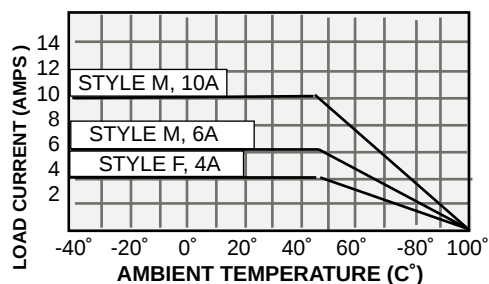


FIGURE 1 CHART INDICATES CONTINUOUS CURRENT TO LIMIT THE JUNCTION TEMPERATURES TO 100° C. INFORMATION IS BASED ON THE USE OF A 12" X 12" X 1/8" ALUMINUM HEAT SINK WITH SILICON GREASE IN A 2 CUBIC FOOT SEALED ENCLOSURE.

Figure 2: Maximum Peak Surge Current vs. Surge Duration

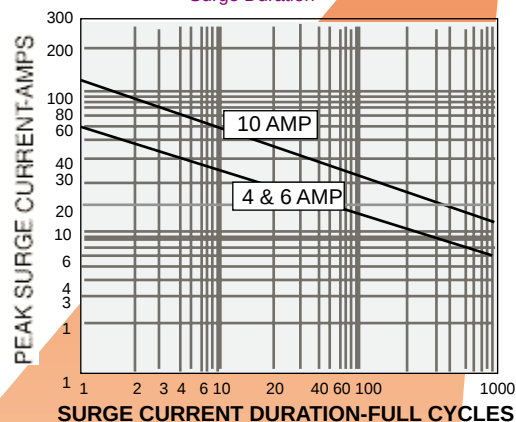


FIGURE 2 CHART INFORMATION IS BASED ON A SUPPLY FREQUENCY OF 60 HERTZ SINUSOIDAL AND A RESISTIVE OR INDUCTIVE LOAD. APPLICATION OF MAXIMUM SURGE CURRENT MAY NOT BE REPEATED UNTIL THE RELAY TEMPERATURE HAS RETURNED TO ITS STEADY STATE VALUE.

GENERAL SPECIFICATIONS

INPUT CHARACTERISTICS

Input Voltage Range:	3-30 VDC	6-30 VDC
Max Reverse Control Voltage:	5 VDC	5 VDC
Input Current:	7.0 -16.0 mA	6.0 -10.0 mA
Average Input Impedance @ 24 VDC Typ.:	1777 Ω	2750 Ω

OUTPUT CHARACTERISTICS

Max. Load Current :	4, 6 & 10 Amps
Load Voltage Range (VAC)	24-140 VAC, 24-280 VAC
Minimum Load Current $I_{T\ MIN}$ (RMS) to Maintain "ON":	75 mA
Maximum Off State Leakage Current I_D (RMS):	6 mA
Maximum On-State Voltage V_T Drop:	1.5 V Peak Max.
Maximum Off-State dv/dt:	3000 V/ microsecond typical.
Operating Frequency Range:	25 Hz to 70 Hz
One Cycle Surge Current:	4 = 60, 6 = 60, 10 =110 Amps Peak Max.
Minimum Peak Blocking Voltage:	120=400 V, 240=600 V
Turn - On Time (60Hz):	8.3 mS Maximum.
Turn - Off Time (60Hz):	8.3 mS Maximum.

MISCELLANEOUS CHARACTERISTICS

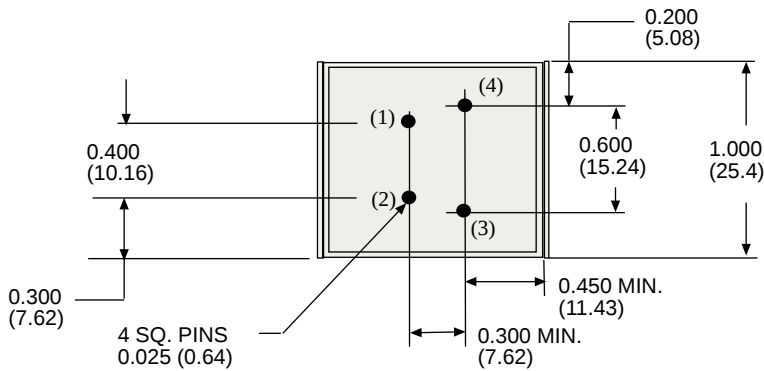
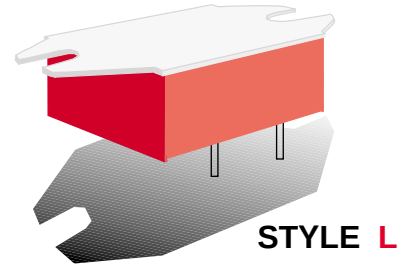
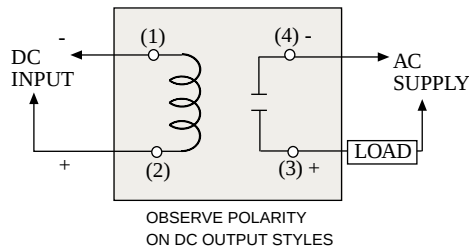
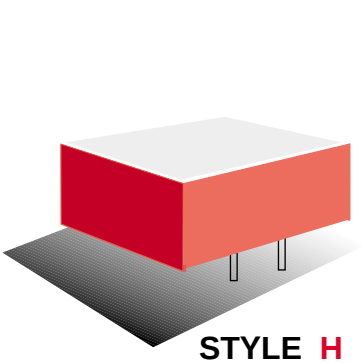
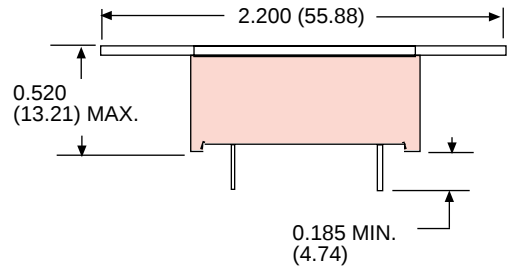
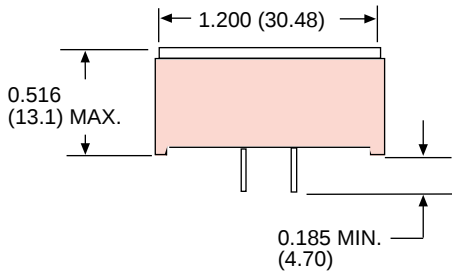
Output Configuration:	Normally Open.
Dielectric Strength V_{ISO} (Input-Output Isolation):	3000 V rms. Min.
Insulation Resistance :	$10^9 \Omega$
Operating Temperature Range:	-40°C to +100°C
Storage Temperature Range:	-40°C to +125°C
Weight:	30 g. Style F, 52 g. Style M Appox.



“ H ” & “ L ” STYLE

OUTLINE DIMENSIONS

Dimensions shown in Inch and (Millimeter).



FEATURES

- * MICRO CUBE SOLID STATE RELAY
- * OPTICALLY ISOLATED
- * PC MOUNT ONLY 0.5" ABOVE BOARD
- * MINIMAL BOARD SPACE REQUIRED
- * LIFETIME WARRANTY



FIGURE 1: Maximum Continuous Current vs. Ambient Temperature

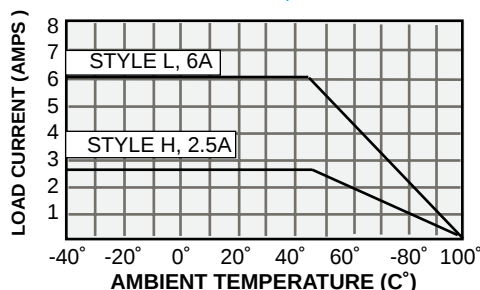


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Figure 2: Maximum Peak Surge Current vs. Surge Duration

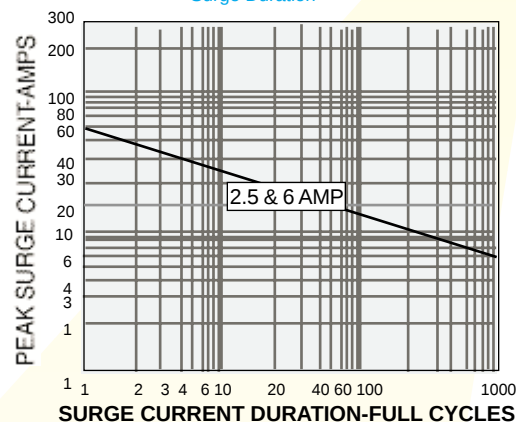


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GENERAL SPECIFICATIONS

INPUT CHARACTERISTICS

Input Voltage Range:	3-32 VDC	6-30 VDC
Max Reverse Control Voltage:	5 VDC	5 VDC
Input current:	1.0 -18.0 mA	1.0 -6.0 mA
Average Input Impedance @ 24 VDC Typ.:	2777 Ω	6000 Ω

OUTPUT CHARACTERISTICS

Max. Load Current :	2.5 & 6.0 Amps
Load Voltage Range (VAC):	24 V=10-50 V, 120 V=24-140 V, 240 V=24-280 V
Minimum Load Current IT MIN (RMS) to maintain "ON":	75 mA
Maximum Off State Leakage current ID (RMS):	24V= 4 mA 120 V=6 mA, 240 V=6 mA
Maximum On-State Voltage VT drop:	1.5 V Peak Max.
Maximum off-state dv/dt:	3000 V/microsecond typical.
Operating Frequency Range:	25 Hz to 70 Hz
One Cycle surge current:	60 Peak Max.
Minimum Peak Blocking voltage:	24 V= 200 V, 120 V= 400 V, 240 V= 600 V
Turn - On Time (60Hz):	8.3 mS Maximum.
Turn - Off Time (60Hz):	8.3 mS Maximum.

MISCELLANEOUS CHARACTERISTICS

Output configuration:	Normally Open.
Dielectric Strength VISO (Input-Output Isolation):	2500 V rms. Min.
Insulation Resistance :	10 ⁹ Ω
Operating Temperature Range:	-40°C to +100°C
Storage Temperature Range:	-40°C to +125°C
Weight:	20 g. Style H, 22 g. Style L Appox.

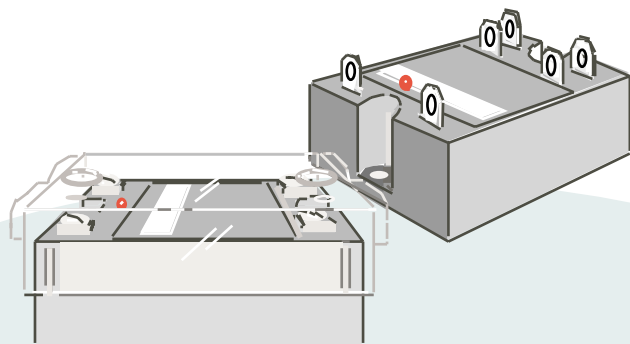


PART NUMBERS	INPUT (Over Operating Temperature Range)			OUTPUT (Over Operating Temperature Range)			STYLE TYPE
DC CONTROLLED AC OUTPUT	CONTROL VOLTAGE RANGE	MAX. PULL - IN	MIN DROP OUT	NOMINAL VOLTAGE RANGE	MAX. VOLTAGE	MAX. CURRENT RATING	
70S2-04-D-03-V	3-32 VDC	3 VDC	1 VDC	10 - 50 AC	50 VAC	3 AMPS	V
70S2-05-D-03-V	6-32 VDC	6 VDC	1 VDC	10 - 50 AC	50 VAC	3 AMPS	V
70S2-04-B-03-V	3-32 VDC	3 VDC	1 VDC	24 - 140 AC	140 VAC	3 AMPS	V
70S2-05-B-03-V	6-32 VDC	6 VDC	1 VDC	24 - 140 AC	140 VAC	3 AMPS	V
70S2-04-C-03-V	3-32 VDC	3 VDC	1 VDC	24 - 280 AC	280 VAC	3 AMPS	V
70S2-05-C-03-V	6-32 VDC	6 VDC	1 VDC	24 - 280 AC	280 VAC	3 AMPS	V
70S2-04-D-02-H	3-30 VDC	3 VDC	1 VDC	10 - 50 AC	50 VAC	2.5 AMPS	H
70S2-05-D-02-H	6-30 VDC	6 VDC	1 VDC	10 - 50 AC	50 VAC	2.5 AMPS	H
70S2-04-B-02-H	3-30 VDC	3 VDC	1 VDC	24 - 140 AC	140 VAC	2.5 AMPS	H
70S2-05-B-02-H	6-30 VDC	6 VDC	1 VDC	24 - 140 AC	140 VAC	2.5 AMPS	H
70S2-04-C-02-H	3-30 VDC	3 VDC	1 VDC	24 - 280 AC	280 VAC	2.5 AMPS	H
70S2-05-C-02-H	6-30 VDC	6 VDC	1 VDC	24 - 280 AC	280 VAC	2.5 AMPS	H
70S2-04-B-06-L	3-30 VDC	3 VDC	1 VDC	24 - 140 AC	140 VAC	6 AMPS	L
70S2-05-B-06-L	6-30 VDC	6 VDC	1 VDC	24 - 140 AC	140 VAC	6 AMPS	L
70S2-04-C-06-L	3-30 VDC	3 VDC	1 VDC	24 - 280 AC	280 VAC	6 AMPS	L
70S2-05-C-06-L	6-30 VDC	6 VDC	1 VDC	24 - 280 AC	280 VAC	6 AMPS	L
70S2-04-B-04-F	3-30 VDC	3 VDC	1 VDC	24 - 140 AC	140 VAC	4 AMPS	F
70S2-05-B-04-F	6-30 VDC	6 VDC	1 VDC	24 - 140 AC	140 VAC	4 AMPS	F
70S2-04-C-04-F	3-30 VDC	3 VDC	1 VDC	24 - 280 AC	280 VAC	4 AMPS	F
70S2-05-C-04-F	6-30 VDC	6 VDC	1 VDC	24 - 280 AC	280 VAC	4 AMPS	F
70S2-04-B-06-M	3-30 VDC	3 VDC	1 VDC	24 - 140 AC	140 VAC	6 AMPS	M
70S2-05-B-06-M	6-30 VDC	6 VDC	1 VDC	24 - 140 AC	140 VAC	6 AMPS	M
70S2-04-B-10-M	3-30 VDC	3 VDC	1 VDC	24 - 140 AC	140 VAC	10 AMPS	M
70S2-05-B-10-M	6-30 VDC	6 VDC	1 VDC	24 - 140 AC	140 VAC	10 AMPS	M
70S2-04-C-06-M	3-30 VDC	3 VDC	1 VDC	24 - 280 AC	280 VAC	6 AMPS	M
70S2-05-C-06-M	6-30 VDC	6 VDC	1 VDC	24 - 280 AC	280 VAC	6 AMPS	M
70S2-04-C-10-M	3-30 VDC	3 VDC	1 VDC	24 - 280 AC	280 VAC	10 AMPS	M
70S2-05-C-10-M	6-30 VDC	6 VDC	1 VDC	24 - 280 AC	280 VAC	10 AMPS	M
70S2-04-B-06-N	3-30 VDC	3 VDC	1 VDC	24 - 140 AC	140 VAC	6 AMPS	N
70S2-05-B-06-N	6-30 VDC	6 VDC	1 VDC	24 - 140 AC	140 VAC	6 AMPS	N
70S2-04-B-12-N	3-30 VDC	3 VDC	1 VDC	24 - 140 AC	140 VAC	12 AMPS	N
70S2-05-B-12-N	6-30 VDC	6 VDC	1 VDC	24 - 140 AC	140 VAC	12 AMPS	N
70S2-04-C-06-N	3-30 VDC	3 VDC	1 VDC	24 - 280 AC	280 VAC	6 AMPS	N
70S2-05-C-06-N	6-30 VDC	6 VDC	1 VDC	24 - 280 AC	280 VAC	6 AMPS	N
70S2-04-C-12-N	3-30 VDC	3 VDC	1 VDC	24 - 280 AC	280 VAC	12 AMPS	N
70S2-05-C-12-N	6-30 VDC	6 VDC	1 VDC	24 - 280 AC	280 VAC	12 AMPS	N
70S2-04-B-06-S	3-30 VDC	3 VDC	1 VDC	24 - 140 AC	140 VAC	6 AMPS	S
70S2-05-B-06-S	6-30 VDC	6 VDC	1 VDC	24 - 140 AC	140 VAC	6 AMPS	S
70S2-04-B-12-S	3-30 VDC	3 VDC	1 VDC	24 - 140 AC	140 VAC	12 AMPS	S
70S2-05-B-12-S	6-30 VDC	6 VDC	1 VDC	24 - 140 AC	140 VAC	12 AMPS	S
70S2-03-B-25-S	3-30 VDC	3 VDC	1 VDC	24 - 140 AC	140 VAC	25 AMPS	S
70S2-04-C-06-S	3-30 VDC	3 VDC	1 VDC	24 - 280 AC	280 VAC	6 AMPS	S
70S2-05-C-06-S	6-30 VDC	6 VDC	1 VDC	24 - 280 AC	280 VAC	6 AMPS	S
70S2-04-C-12-S	3-30 VDC	3 VDC	1 VDC	24 - 280 AC	280 VAC	12 AMPS	S
70S2-05-C-12-S	6-30 VDC	6 VDC	1 VDC	24 - 280 AC	280 VAC	12 AMPS	S
70S2-03-C-25-S	3-30 VDC	3 VDC	1 VDC	24 - 280 AC	280 VAC	25 AMPS	S
	CONTROL VOLTAGE RANGE	MAX. PULL - IN	MIN DROP OUT	NOMINAL VOLTAGE RANGE	MAX. VOLTAGE	MAX. CURRENT RATING	STYLE TYPE
70S2-01-A-03-V	3-15 VDC	3 VDC	1 VDC	3 - 60 VDC	60 VDC	3 AMPS	V
70S2-02-A-03-V	9-30 VDC	9 VDC	1 VDC	3 - 60 VDC	60 VDC	3 AMPS	V
70S2-01-A-03-F	3-15 VDC	3 VDC	1 VDC	3 - 60 VDC	60 VDC	3 AMPS	F
70S2-02-A-03-F	9-30 VDC	9 VDC	1 VDC	3 - 60 VDC	60 VDC	3 AMPS	F
70S2-01-A-05-N	3-15 VDC	3 VDC	1 VDC	3 - 60 VDC	60 VDC	5 AMPS	N
70S2-01-A-05-S	3-15VDC	3 VDC	1 VDC	3 - 60 VDC	60 VDC	5 AMPS	S
70S2-02-A-05-S	9-30 VDC	9 VDC	1 VDC	3 - 60 VDC	60 VDC	5 AMPS	S

SOLID STATE RELAY

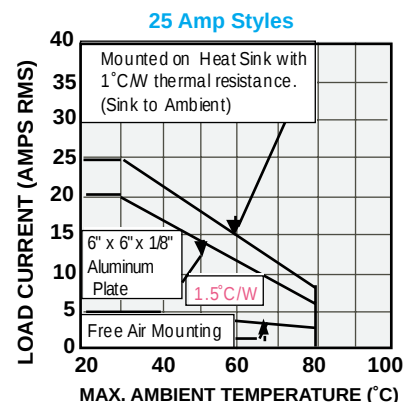
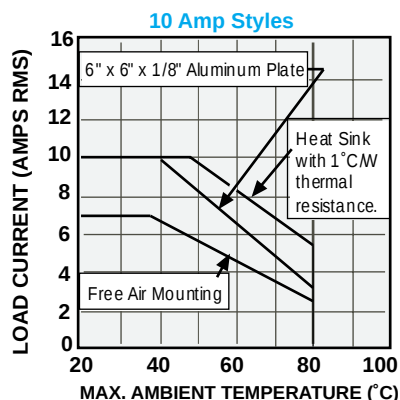
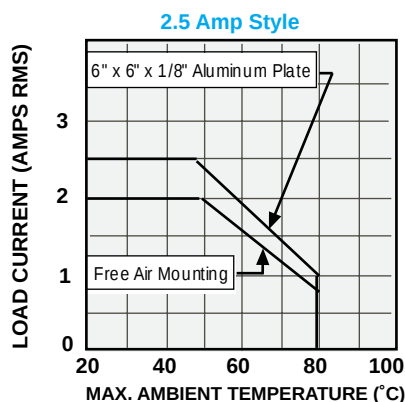


On selected Models.

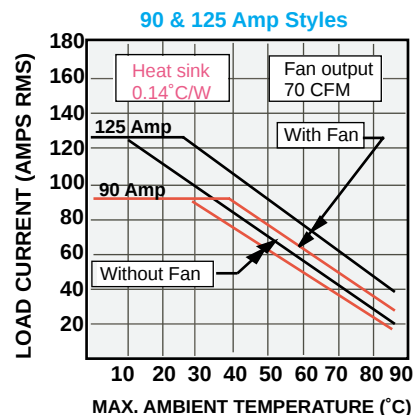
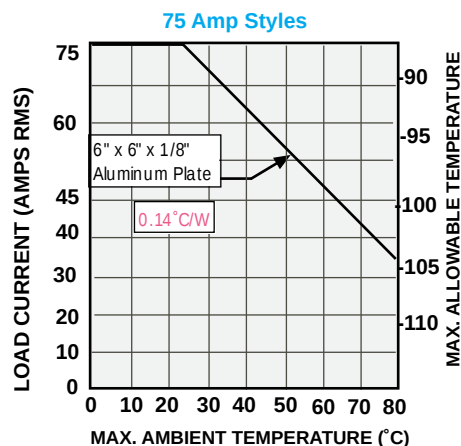
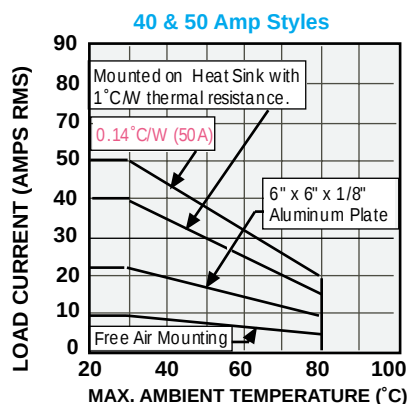


BENEFITS- CLASS 6 SSR's

- * L.E.D. STATUS LAMP
- * CLEAR SAFETY COVER
- * SINGLE AND DUAL OUTPUTS
- * UP TO 660 VOLT OUTPUTS



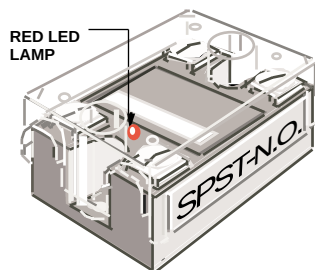
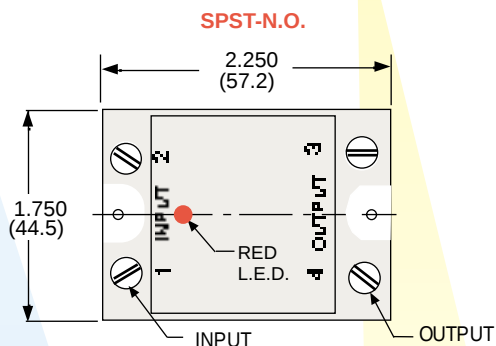
THERMAL DERATING CURVE & LOAD CHARACTERISTICS



All current ratings in the following pages are based on use of suitable thermally conductive compound (e.g. silicone grease) between the SSR mounting base and mounting surface of suitable heat sink.

OUTLINE DIMENSIONS

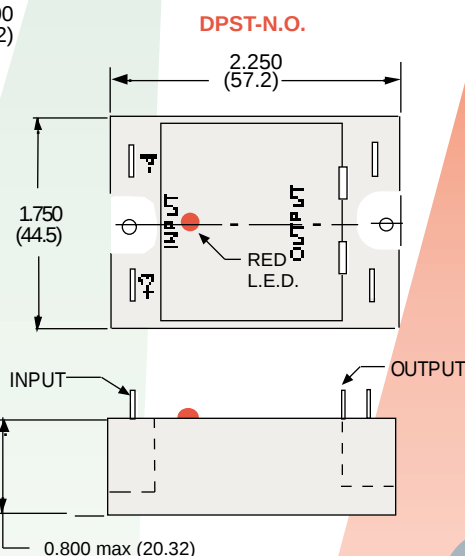
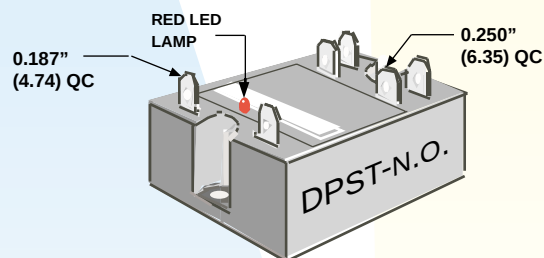
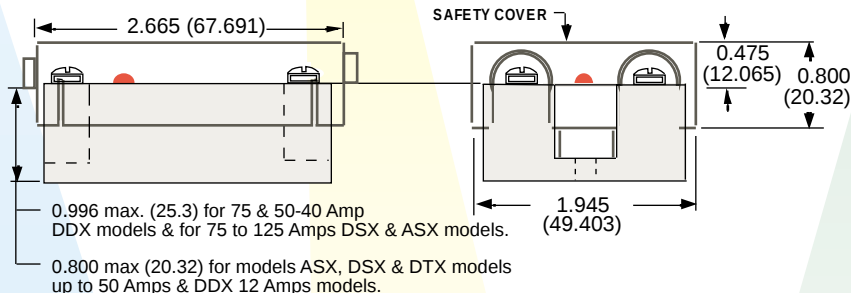
Dimensions Shown in Inch and (Millimeter).



INPUT & OUTPUT SCREW SIZE
(Shown in Millimeters)

UP TO 40 AMP	
INPUT	OUTPUT
3.5 mm	4 mm
ABOVE 40 AMP	
3.5 mm	6 mm

LIFETIME WARRANTY



GENERAL SPECIFICATIONS

INPUT CHARACTERISTICS

Input Voltage Range:
Power Indicator:
Reverse Polarity Protected:
Input Filtered for Transients less than One Millisecond:
Input Current:
Input Impedance:

3-32 VDC, 90 - 280 VAC and 3.5 to 32 VDC (DDX)
L.E.D. Indicator.
Yes: DC Input with AC output styles only.
Yes
8mA@ 3VDC, 25mA @32 VDC.
ASX-13K Ω Min., DSX-1.5K Ω Min., DTX and DDX-1K Ω Min.,

OUTPUT CHARACTERISTICS

Max. Load Current :
Load Voltage Range (VAC)
Maximum Output Voltage (VAC):
Minimum Load Current $I_{T MIN}$ (RMS) to Maintain "ON"

2.5 Amps to 125 Amps
W62 Models: 24-240 VAC, W64 Models: 48-480 VAC, W66 Models: 48-600 VAC
W62: 280 VAC, W64: 560 VAC, W66: 660
Up to 10 Amp Models: 50 mA, 25 Amp Models: 120 mA,
40 to 75 Amp Models: 250mA, 90 to 125 Amp, 500 mA, DDX 20 mA.
10 mA Max.
Up to 50 Amp Models: 1.6 V, 75 to 125 Amp Models: 1.8 V, DDX 2.83 V.
Up to 500 V/usec.
ASX, DSX & DTX, 1/2 Cycle, (DDX) 600 μ S Max.
ASX, DSX & DTX, 1/2 Cycle, (DDX) 2.6 ms Max.

Maximum Off State Leakage Current I_D (RMS):
Maximum On-State Voltage Drop V_T (RMS):
Maximum Off-State dv/dt:
Turn - On Time (60Hz):
Turn - Off Time (60Hz):

MISCELLANEOUS CHARACTERISTICS

Output Configuration:
Dielectric Strength V_{ISO} (Input-Output Isolation):
Insulation Resistance R_{ISO} @ 500VDC:
Operating Temperature Range:
Storage Temperature Range:
Life:
Weight:

(ASX, DSX & DDX) SPST-NO. (DTX) DPST-NO.
4000 VAC, DDX Models 2500 VAC.
10¹⁰ Ω
-40°C to +80°C
-40°C to +100°C
Greater than 100 Million Operations
2.5 to 50 Amp Models: 4 oz. (110 g) 75 Amp to 125 Amp Models: 6.8 oz. (192 g), 12 Amps, 25 Amps & 40 Amps, DDX Models: 4.76 oz. (135 g).

PART NUMBERS	INPUT (Over Operating Temperature Range)			OUTPUT (Over Operating Temperature Range)			CROSS REFERENCE		
DC CONTROLLED AC OUTPUT	CONTROL VOLTAGE RANGE	MAX PULL-IN	MIN DROP OUT	NOMINAL VOLTAGE RANGE	MAX. VOLTAGE	MAX. CURRENT RATING	CRYDOM	IDEC	POTTER & BRUMFIELD
W6202DSX-1	3-32 VDC	3 VDC	1 VDC	24-240 VAC	280 VAC	2.5 AMPS	D2402	-	-
W6210DSX-1	3-32 VDC	3 VDC	1 VDC	24-240 VAC	280 VAC	10 AMPS	D2410	RSSD-10A	EOM1DA44-4-32
*W6225DSX-1	3-32 VDC	3 VDC	1 VDC	24-240 VAC	280 VAC	25 AMPS	D2425	RSSD-25A	SSR240D25
W6240DSX-1	3-32 VDC	3 VDC	1 VDC	24-240 VAC	280 VAC	40 AMPS	D2440	RSSD-40A	-
W6250DSX-1	3-32 VDC	3 VDC	1 VDC	24-240 VAC	280 VAC	50 AMPS	D2450	-	SSR240D50
W6275DSX-1	3-32 VDC	3 VDC	1 VDC	24-240 VAC	280 VAC	75 AMPS	D2475	-	-
W6410DSX-1	3-32 VDC	3 VDC	1 VDC	48-480 VAC	560 VAC	10 AMPS	-	-	-
W6425DSX-1	3-32 VDC	3 VDC	1 VDC	48-480 VAC	560 VAC	25 AMPS	-	-	SSR480D25
W6440DSX-1	3-32 VDC	3 VDC	1 VDC	48-480 VAC	560 VAC	40 AMPS	-	-	-
W6450DSX-1	3-32 VDC	3 VDC	1 VDC	48-480 VAC	560 VAC	50 AMPS	HD4850	-	SSR480D50
W6475DSX-1	3-32 VDC	3 VDC	1 VDC	48-480 VAC	560 VAC	75 AMPS	HD6075	-	-

*CE Certified

PART NUMBERS	INPUT (Over Operating Temperature Range)			OUTPUT (Over Operating Temperature Range)			CROSS REFERENCE		
AC CONTROLLED AC OUTPUT	CONTROL VOLTAGE RANGE	MAX PULL-IN	MIN DROP OUT	NOMINAL VOLTAGE RANGE	MAX. VOLTAGE	MAX. CURRENT RATING	CRYDOM	IDEC	POTTER & BRUMFIELD
W6202ASX-1	90 -280 VAC	90 VAC	10 VAC	24-240 VAC	280 VAC	2.5 AMPS	A2402	-	-
W6210ASX-1	90 -280 VAC	90 VAC	10 VAC	24-240 VAC	280 VAC	10 AMPS	A2410	RSSA-10A	-
*W6225ASX-1	90 -280 VAC	90 VAC	10 VAC	24-240 VAC	280 VAC	25 AMPS	A2425	RSSA-25A	SSR240A25
W6240ASX-1	90 -280 VAC	90 VAC	10 VAC	24-240 VAC	280 VAC	40 AMPS	A2440	RSSA-40A	-
W6250ASX-1	90 -280 VAC	90 VAC	10 VAC	24-240 VAC	280 VAC	50 AMPS	A2450	-	SSR240A50
W6275ASX-1	90 -280 VAC	90 VAC	10 VAC	24-240 VAC	280 VAC	75 AMPS	A2475	-	-
W6410ASX-1	90 -280 VAC	90 VAC	10 VAC	48-480 VAC	560 VAC	10 AMPS	-	-	-
W6425ASX-1	90 -280 VAC	90 VAC	10 VAC	48-480 VAC	560 VAC	25 AMPS	HA4825	-	SSR480A25
W6440ASX-1	90 -280 VAC	90 VAC	10 VAC	48-480 VAC	560 VAC	40 AMPS	-	-	-
W6450ASX-1	90 -280 VAC	90 VAC	10 VAC	48-480 VAC	560 VAC	50 AMPS	HA4850	-	SSR480A50
W6475ASX-1	90 -280 VAC	90 VAC	10 VAC	48-480 VAC	560 VAC	75 AMPS	HA4875	-	-

*CE Certified

PART NUMBERS	INPUT (Over Operating Temperature Range)			OUTPUT (Over Operating Temperature Range)			CROSS REFERENCE	
DC CONTROLLED AC OUTPUT	CONTROL VOLTAGE RANGE	MAX PULL-IN	MIN DROP OUT	NOMINAL VOLTAGE RANGE	MAX. VOLTAGE	MAX. CURRENT RATING	CRYDOM	POTTER & BRUMFIELD
W6690DSX-1	3-32 VDC	3 VDC	1 VDC	48-600 VAC	660 VAC	90 AMPS	HD6090	-
W66125DSX-1	3-32 VDC	3 VDC	1 VDC	48-600 VAC	660 VAC	125 AMPS	HD60125	-

PART NUMBERS	INPUT (Over Operating Temperature Range)			OUTPUT (Over Operating Temperature Range)			CROSS REFERENCE	
AC CONTROLLED AC OUTPUT	CONTROL VOLTAGE RANGE	MAX PULL-IN	MIN DROP OUT	NOMINAL VOLTAGE RANGE	MAX. VOLTAGE	MAX. CURRENT RATING	CRYDOM	POTTER & BRUMFIELD
W6690ASX-1	90-280 VAC	90 VDC	10 VDC	48-600 VAC	660 VAC	90 AMPS	HA6090	-
W66125ASX-1	90-280 VAC	90 VDC	10 VDC	48-600 VAC	660 VAC	125 AMPS	HA60125	-

PART NUMBERS	INPUT (Over Operating Temperature Range)			OUTPUT (Over Operating Temperature Range)			CROSS REFERENCE	
DC CONTROLLED AC TRIAC OUTPUT	CONTROL VOLTAGE RANGE	MAX PULL-IN	MIN DROP OUT	NOMINAL VOLTAGE RANGE	MAX. VOLTAGE	MAX. CURRENT RATING	CRYDOM	POTTER & BRUMFIELD
W6210DTX-1	3-32 VDC	3 VDC	1 VDC	24-240 VAC	280 VAC	10 AMPS	TD2410	SSRT240D10
W6225DTX-1	3-32 VDC	3 VDC	1 VDC	24-240 VAC	280 VAC	25 AMPS	-	-
W6410DTX-1	3-32 VDC	3 VDC	1 VDC	48-480 VAC	500 VAC	10 AMPS	-	-

PART NUMBERS	INPUT (Over Operating Temperature Range)			OUTPUT (Over Operating Temperature Range)		CROSS REFERENCE
DC CONTROLLED DC OUTPUT	CONTROL VOLTAGE RANGE	MAX PULL-IN	MIN DROP OUT	NOMINAL VOLTAGE RANGE	MAX. CURRENT RATING	CRYDOM
W6212DDX-1	3.5 - 32 VDC	3.5VDC	1 VDC	0 -200 VDC	12 AMPS	D2D12
W6225DDX-1	3.5 - 32 VDC	3.5VDC	1 VDC	0 -200 VDC	25 AMPS	D1D20*
W6240DDX-1	3.5 - 32 VDC	3.5VDC	1 VDC	0 -200 VDC	40 AMPS	D1D40*

*Crydom relays only rated at 0-100 VDC

PART NUMBERS	INPUT (Over Operating Temperature Range)			OUTPUT (Over Operating Temperature Range)		
DC CONTROLLED AC OUTPUT DPST NO	CONTROL VOLTAGE RANGE	MAX PULL-IN	MIN DROP OUT	NOMINAL VOLTAGE RANGE	MAX. VOLTAGE	MAX. CURRENT RATING
W6210DTX-3	3.5-32 VDC	3VDC	1 VDC	24-240 VAC	280 VAC	10 AMPS