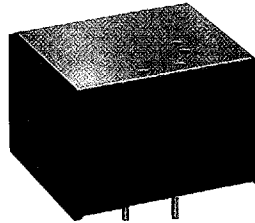
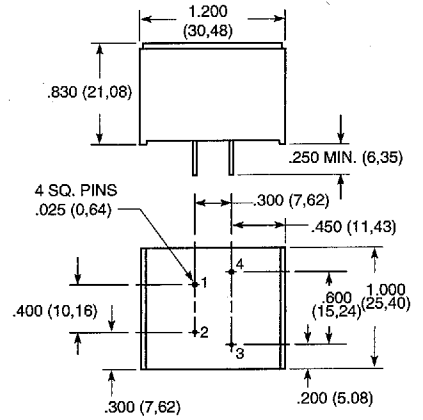


DC/AC SOLID STATE RELAYS

STYLE F



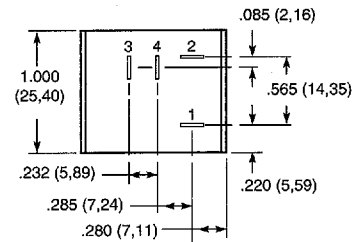
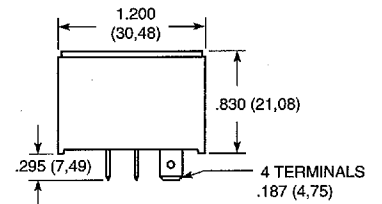
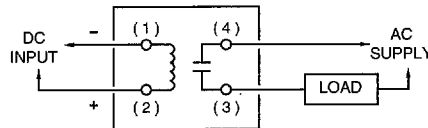
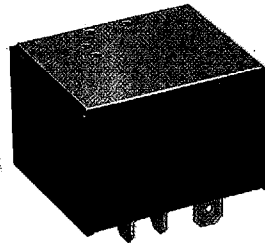
DIMENSIONS ARE SHOWN IN INCHES (AND MILLIMETERS). ALL TOLERANCES ±.010 (0,25) UNLESS OTHERWISE SPECIFIED



FEATURES

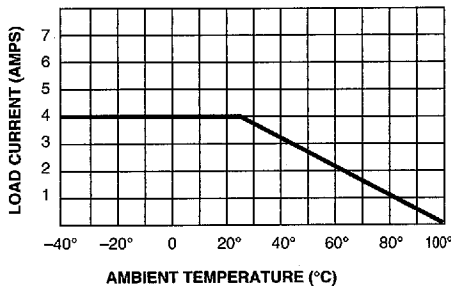
- Mini Cube Solid State Relay
- Optically Isolated
- Switches Up to 4 Amp Loads Without Additional Heat Sink
- PC Mount or Plug-In Option
- UL Recognized and CSA Certified

STYLE K



TERMINALS OF STYLE K FIT STANDARD SOCKET OR PUSH ON TABS. SOCKETS ARE IDEC PART NUMBERS SH2B-51, SH2B-62, SH2B-02 OR EQUIVALENTS.

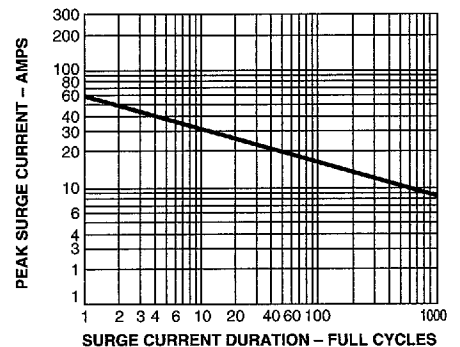
FIGURE 1: MAXIMUM CONTINUOUS CURRENT VS. AMBIENT TEMPERATURE



In Figure 1 the 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.

In Figure 2 the 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



DC/AC SOLID STATE RELAYS

SPECIFICATIONS

Output Circuit

Nominal Line Voltage (Vac):	24	120	240
Load Voltage Range (Vac):	10-50	24-140	24-280
Minimum Peak Blocking Voltage (Volts):	200	400	600
Maximum Zero Voltage Offset (Volts):	6	8	18
Max. Off State Leakage Current 60 Hz (mA rms):	4	6	6

Load Current Range: 75 mA to 4 Amps rms. See Figure 1 for derating.

One Cycle Surge Current: 60 Amps peak maximum. See Figure 2 for derating.

Static dV/dt : 3000 V/microsecond typical, measured under open circuit conditions. Not to exceed peak blocking voltage.

Load Power Factor Range: 0.5 to 1.0

Frequency Range: 25 to 70 Hz

On State Voltage Drop: 1.5V peak maximum

Thermal Resistance (Junction to Ambient): 15°C/Watt

Typical Power Dissipation: 1 Watt/Amp

Turn-On Time (60 Hz): 8.3 mS maximum

Turn-Off Time (60 Hz): 8.3 mS maximum

I²t For Fusing (t = 8.3 mS): 26.5 Amp²Sec minimum

Input Circuit

Control Voltage Range (Vdc):	3-30	6-30
Control Current Range (mA):	1.0-18.0	1.0-6.0
Ave. Input Impedance (Ohms):	2000	6000
Min. Drop Out Voltage (Vdc):	1.0	1.0
Max. Reverse Control Voltage (Vdc):	5	5

General Characteristics

Insulation Resistance (Input to Output; Input or Output to Case): 10⁹ ohms minimum

Dielectric Strength:

(Input to Output): 3750 Vrms minimum
(Input or Output to Case): 3000 Vrms min.

Capacitance (Input to Output): 6 pF typical

Vibration: 20 g's peak or .06" double amplitude 10-2000 Hz per MIL-STD-202, Method 204, Condition D

Mechanical Shock: 1500 g's 0.5 mS half-sine per MIL-STD-202, Method 213, Condition F

Operating Temperature Range:

-40° to +100°C

Storage Temperature Range:

-40°C to +125°C

Weight: 35 grams maximum

Materials and Finishes

Tab Terminals, Style K: Brass, Lead-Tin plated

PC Terminals, Style F: Copper wire, Lead-Tin plated

Case: Solvent resistant thermoplastic, Polyester, meets UL94V-0

Potting: High thermal conductive epoxy

Heat Sink: Aluminum

UL Recognition and CSA Certification

UL file number E58632 and CSA file number LR38763 apply to all relays shown here.

All specifications apply over the operation temperature range.

ORDERING INFORMATION

Nom. Load Vac	Max. Load, Amps	Control Voltage Vdc	Grayhill Part Number
MINI CUBE RELAY, PC MOUNT STYLE F			
24	4A	3-30	70S2-04-D-04-F
24	4A	6-30	70S2-05-D-04-F
120	4A	3-30	70S2-04-B-04-F
120	4A	6-30	70S2-05-B-04-F
240	4A	3-30	70S2-04-C-04-F
240	4A	6-30	70S2-05-C-04-F
MINI CUBE RELAY, PLUG-IN STYLE K			
24	4A	3-30	70S2-04-D-04-K
24	4A	6-30	70S2-05-D-04-K
120	4A	3-30	70S2-04-B-04-K
120	4A	6-30	70S2-05-B-04-K
240	4A	3-30	70S2-04-C-04-K
240	4A	6-30	70S2-05-C-04-K

Available From Your Local Grayhill Electronic and Industrial Distributors

For prices and discounts, contact a local Sales Office, an authorized local Distributor, or Grayhill.

These styles are also available in DC to DC solid state relays. See page G-13.