# *Sockets*
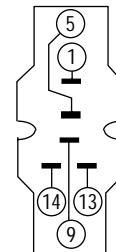
## SH Series: DIN Rail Snap-Mount Sockets

### SH1B Sockets
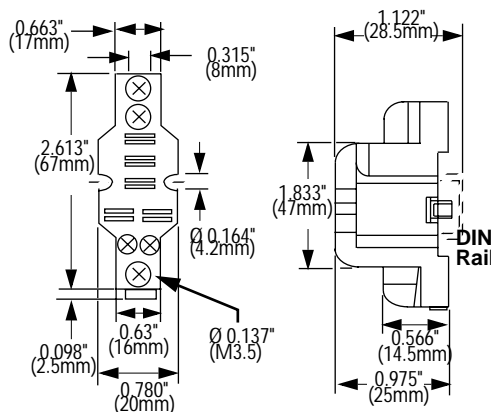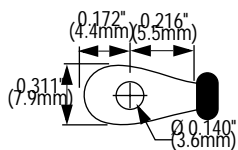
**SH1B-05**

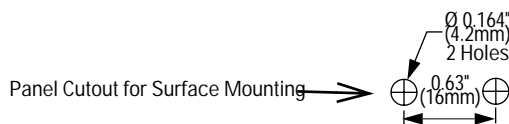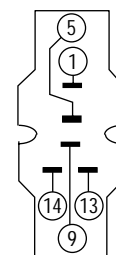| Style | 5-blade, snap-mount/surface mount |
|---|---|
| Terminal | (Coil) M3 screws/(contact) M3.5 screws with captive wire clamp |
| Wire Size | Maximum up to 2–#12AWG |
| Electrical Rating | 250V, 10A |
| Compatible Relay | RH1B, RAHB, RBHB |
| Hold-Down Spring | SY2S-02F1 |
| Hold-Down Clip | SFA-101, SFA-202 |

Panel Cutout for Surface Mounting

**SH1B-05C Fingersafe**

| Style | 5-blade, snap-mount/surface mount |
|---|---|
| Terminal | (Coil) M3 screws/(contact) M3.5 screws with captive wire clamp, fingersafe |
| Wire Size | Maximum up to 2–#12AWG |
| Electrical Rating | 250V, 10A |
| Compatible Relay | RH1B, RAHB, RBHB |
| Hold-Down Spring | SY2S-02F1 |
| Hold-Down Clip | SFA-101, SFA-202 |

Panel Cutout for Surface Mounting

**F**

*1. For socket mounting accessories, see page F-22.*
*2. For hold-down clip/spring selections, see page F-4.*

## SH2B Sockets

### SH2B-05

| Style | 8-blade, snap-mount/surface mount |
|---|---|
| Terminal | M3.5 screws with captive wire clamp |
| Wire Size | Maximum up to 2–#12AWG |
| Electrical Rating | 300V, 10A |
| Compatible Relay | RH2B, RAMB, RBMB |
| Hold-Down Spring | SY4S-02F1 |
| Hold-Down Clip | SFA-101, SFA-202 |
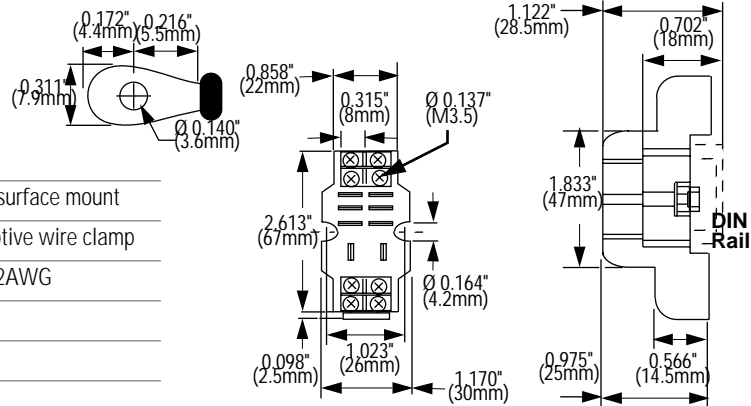
**Terminal Arrangements** (top view)
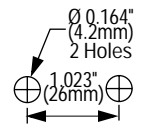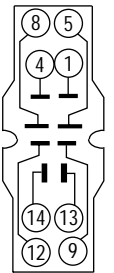
Panel Cutout for Surface Mounting

### SH2B-05C Fingersafe

| Style | 8-blade, snap-mount/surface mount |
|---|---|
| Terminal | M3.5 screws with captive wire clamp, fingersafe |
| Wire Size | Maximum up to 2–#12AWG |
| Electrical Rating | 300V, 10A |
| Compatible Relay | RH2B, RAMB, RBMB |
| Hold-Down Spring | SY4S-02F1 |
| Hold-Down Clip | SFA-101, SFA-202 |

Panel Cutout for Surface Mounting

**F**

*1. For socket mounting accessories, see page F-22.*
*2. For hold-down clip/spring selections, see page F-4.*

## SH3B Sockets



### SH3B-05

| Style | 11-blade, snap-mount/surface mount |
|---|---|
| Terminal | M3.5 screws with captive wire clamp |
| Wire Size | Maximum up to 2–#12AWG |
| Electrical Rating | 300V, 10A |
| Compatible Relay | RH3B, *RH2LB (*latching relay) |
| Hold-Down Spring | SH3B-05F1 |
| Hold-Down Clip | SFA-101, SFA-202 |

Panel Cutout for Surface Mounting

**F**



### SH3B-05C Fingersafe

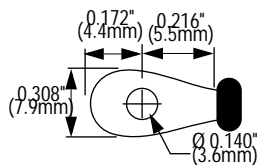| Style | 11-blade, snap-mount/surface mount |
|---|---|
| Terminal | M3.5 screws with captive wire clamp, fingersafe |
| Wire Size | Maximum up to 2–#12AWG |
| Electrical Rating | 300V, 10A |
| Compatible Relay | RH3B, *RH2LB (*latching relay) |
| Hold-Down Spring | SH3B-05F1 |
| Hold-Down Clip | SFA-101, SFA-202 |

**Terminal Arrangements**
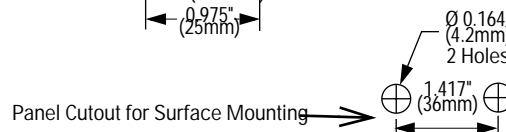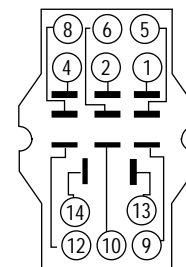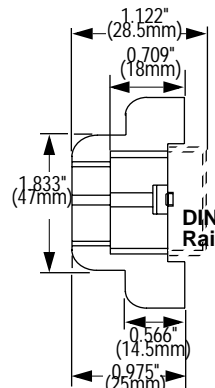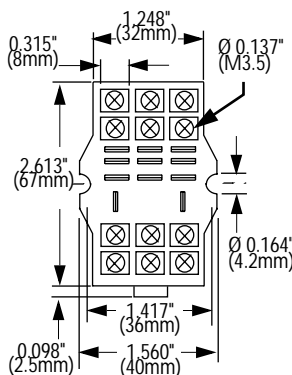(top view)

Panel Cutout for Surface Mounting

✋ *1. For socket mounting accessories, see page F-22.*
*2. For hold-down clip/spring selections, see page F-4.*
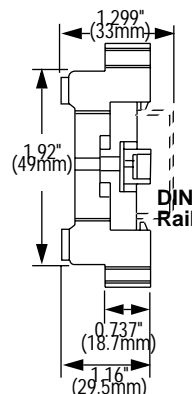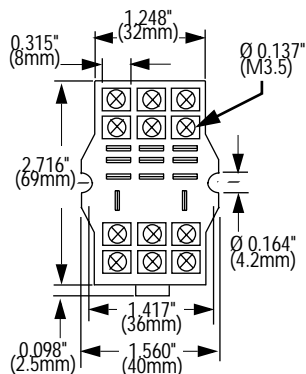
## SH4B Sockets
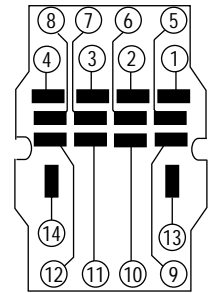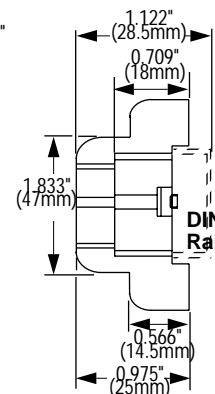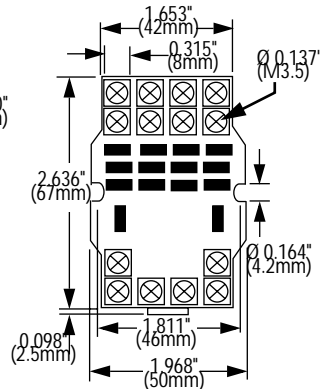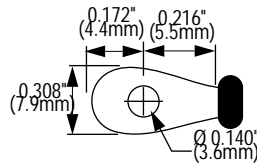


### SH4B-05

| Style | 14-blade, snap-mount/surface mount |
|---|---|
| Terminal | M3.5 screws with captive wire clamp |
| Wire Size | Maximum up to 2–#12AWG |
| Electrical Rating | 300V, 10A |
| Compatible Relay | RH4B |
| Hold-Down Spring | SH4B-02F1 |
| Hold-Down Clip | SFA-101, SFA-202 |

Panel Cutout for Surface Mounting
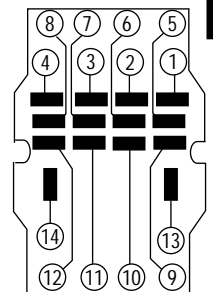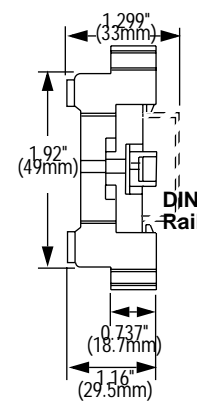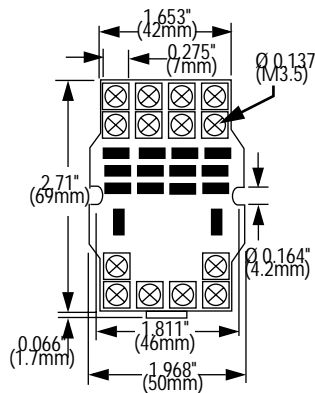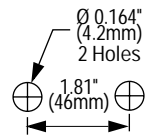


### SH4B-05C Fingersafe

| Style | 14-blade, snap-mount/surface mount |
|---|---|
| Terminal | M3.5 screws with captive wire clamp, fingersafe |
| Wire Size | Maximum up to 2–#12AWG |
| Electrical Rating | 300V, 10A |
| Compatible Relay | RH4B |
| Hold-Down Spring | SH4B-02F1 |
| Hold-Down Clip | SFA-101, SFA-202 |

Panel Cutout for Surface Mounting

**F**
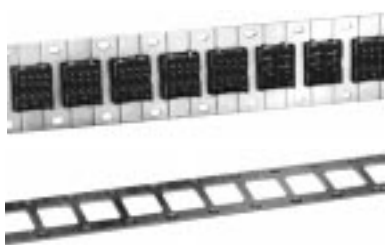
1. *For socket mounting accessories, see page F-22.*
2. *For hold-down clip/spring selections, see page F-4.*

## Accessories



**SA-203** Socket End Connector

Snap-Mount Socket

SA-204

M4 Screw

Washer

SA-203

.709

.197

**Figure 2**

SFA-202 Hold-Down Spring
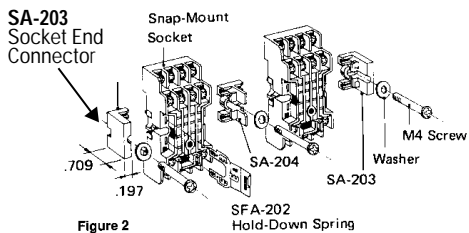
| Description | Appearance | Use with | Part No. | Remarks |
|---|---|---|---|---|
| **Aluminum DIN Rail** (1 meter length) |  | All DIN rail sockets | BNDN1000 | IDEC offers a low-profile DIN rail (BNDN-1000). The BNDN-1000 is designed to accommodate snap-mount sockets and surface mount sockets. Made of durable extruded aluminum, the BNDN-1000 measures 0.413" in height and 1.37" (35mm) in width (DIN standard). Standard length is 39" (1,000mm). |
| **DIN Rail End Stop** |  | BNDN1000 DIN rail | BNL5 | 9.1 mm wide. |
| **Surface Mount End Connector** | | SY2S, SY4S, SR3B, SH1B, SH2B, SH3B, SH4B | SA-203 | For use on ends of socket groupings when surface mounting. |
| | | | SA-204 | For use between adjoining sockets when surface mounting. |
| **Surface Mount Connector** |  | SY2S, SY4S, SR3B, SH1B, SH2B, SH3B, SH4B | SA-405 | For use between adjoining sockets when surface mounting. |
| **DIN Rail Spacer** |  | All DIN rail sockets | SA-406 | |
| **Steel Mounting Plates** (for panel mount sockets) |  | SY4S-51, SH2B-51 | SA-402 | 11.42" length with 10 holes. |
| | | SY4S-51, SH2B-51 | SA-403 | 23.33" length with 21 holes. |
| **Relay Holders** | | RH2B, RM2S, RY4S, RY42S, RY2LS, RAMB, RBMB | RH-01 | For diagram, see next page. |
| | | RY2S, RAHB, RBHB, RH1B | RH-03 | |
| **Replacement Hold-Down Spring Anchor** (horseshoe clip) |  | All DIN rail sockets | Y778-011 | For use with hold-down springs (bale wire types). or DIN rail mount sockets. 2 pieces included with each socket. |

**F**

# idec  *Sockets*

## Mounting Snap-Mount Sockets

**Mount**



**Figure 1**

**Remove**
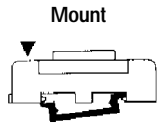


**Figure 2**

Snap-mount sockets are designed to mount on the BNDN-1000 mounting rail. The built-in mounting clip eliminates mounting hardware and reduces mounting time by 80%.

To mount see Figure 1. Place the end of the socket (end opposite of mounting clip against the outer edge of the rail). Press the socket down firmly until the clip snaps onto the mounting rail. To remove see Figure 2. Pull out the mounting clip with a screwdriver, and lift the socket.
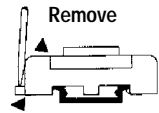
For spacing between adjoining sockets, use the SA-406 DIN rail spacer. Spacers are 0.195" wide. Spacing can be adjusted according to the number of spacers added. Spacers snap on and off easily like snap-mount sockets.

To prevent side-to-side movement, use a BNL-5 end clip at **each** end of every socket row.



BND-1000 Mounting Rail
BNL5 End Clip
Snap-Mount Socket
SA-406 DIN Rail Spacer
SFA-202 Hold-Down Spring
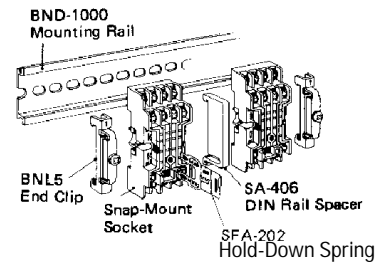
## Mounting Relay Holders



**RH-01 or -03**
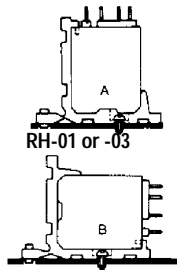
**Figure 1**

Mount directly onto panel boards in two alternate positions: A and B (see Figure 1).

To mount the relay into the holder, hook the bottom edge of the relay case (coil terminal side) onto the relay holder (see Figure 2).
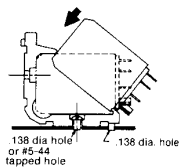
Push down until the relay snaps into place.



.138 dia hole or #5-44 tapped hole     .138 dia. hole

**Figure 2**

F

## Dimensions

### Surface Mount Sockets (SH2B-02)

IDEC surface mount sockets (SH2B-02) are also designed to mount individually or collectively on a flat surface without the use of a DIN rail. Use the mounting screw between adjoining sockets and at the outer ends of the row of sockets.

### Dimension Table

| Socket Part No. | Dimension A |
|---|---|
| SH2B-02 | 1.14" |
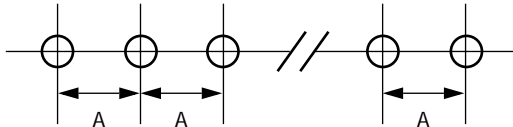


*1. Drawing is not to scale.*

### Snap-Mount Sockets

**F**

Snap-mount sockets are designed to mount individually or collectively without using a rail. Use a SA-405 connector or SA-204 connector between adjoining sockets (see Figures 1 and 2). Use the SA-203 end connector at the outer ends of each socket row when using the SA-204 connector (see Figure 2).

### Dimension Table

| Socket Part No. | Dim. B | Dim. C | Dim. D |
|---|---|---|---|
| SY2S-05, SY2S-05C | 0.669" | 0.826" | 0.866" |
| SY4S-05, SY4S-05C | 1.024" | 1.181" | 1.220" |
| SR3B-05 | 1.496" | 1.693" | 1.732" |
| SH1B-05, SH1B-05C | 0.630" | 0.787" | 0.827" |
| SH2B-05, SH2B-05C | 1.024" | 1.181" | 1.220" |
| SH3B-05, SH3B-05C | 1.417" | 1.575" | 1.614" |
| SH4B-05, SH4B-05C | 1.811" | 1.969" | 2.008" |

**Using an SA-406 Connector**
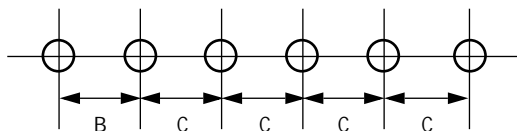


**Using SA-203 or SA-204 Connectors**

0.165" Hole or M4 Tapped
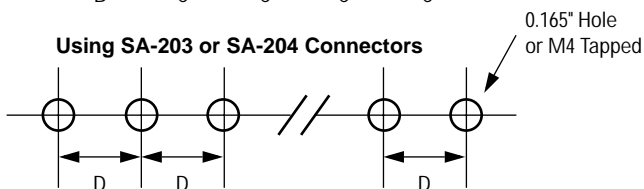


*2. Drawings are not to scale.*

## Relay Socket Selection Guide

**Relay Sockets**

| Mounting | Series | Page | Part No. | No. of Poles | Receptacle | Terminal | Compatible IDEC Relay and Timer |
|---|---|---|---|---|---|---|---|
| DIN Rail Snap-Mount | SR | F-5 | SR2P-05 SR2P-05C SR2P-06 | 2 | 8-Pin | M3.5 Screw | RR2P, RAPP, RBPP, GT5P, RTE-P1, GT3 (8-pin) |
| | | | SR3P-05 SR3P-05C SR3P-06 | 3 | 11-Pin | | RR3PA, RR2KP, RTE-P2 GT3 (11-pin) |
| | | | SR3B-05 | 3 | 11-Blade | | RR1BA, RR2BA, RR3B, RTE-B |
| | SH | F-8 | SH1B-05 SH1B-05C | 1 | 5-Blade | M3.5 Screw Coil Terminal: M3 | RH1B, RAHB, RBHB |
| | | | SH2B-05 SH2B-05C | 2 | 8-Blade | M3.5 Screw | RH2B, RAMB, RBMB |
| | | | SH3B-05 SH3B-05C | 3 | 11-Blade | | RH3B, RH2LB |
| | | | SH4B-05 SH4B-05C | 4 | 14-Blade | | RH4B |
| | SY | F-12 | SY2S-05 SY2S-05C | 2 | 8-Blade | M3 Screw | RY2S, RY22S |
| | | | SY4S-05 SY4S-05C | 4 | 14-Blade | | RY4S, RY42S, RY2KS, RY2LS, RM2S, GT5Y |
| Panel Mount | SR | F-14 | SR2P-51 | 2 | 8-Pin | Solder | RR2P, RAPP, RBPP, GT5P, RTE-P1, GT3 (8-pin) |
| | | | SR3P-51 | 3 | 11-Pin | | RR3PA, RR2KP, RTE-P2, GT3 (11-pin) |
| | | | SR3B-51 | 3 | 11-Blade | | RR1BA, RR2BA, RR3B |
| | SH | F-15 | SH1B-51 | 1 | 5-Blade | | RH1B, RAHB, RBHB |
| | | | SH2B-51 | 2 | 8-Blade | | RH2B, RAMB, RBMB |
| | | | SH3B-51 | 3 | 11-Blade | | RH3B, RH2LB |
| | | | SH4B-51 | 4 | 14-Blade | | RH4B |
| | SY | F-17 | SY2S-51 | 2 | 8-Blade | | RY2S, RY22S |
| | | | SY4S-51 | 4 | 14-Blade | | RY4S, RY42S, RY2KS, RY2LS, RM2S, GT5Y |
| Surface Mount | SH | F-18 | SH2B-02 | 2 | 8-Blade | M3.5 Screw | RH2B, RAMB, RBMB |
| PCB Mount | SH | F3-19 | SH1B-62 | 1 | 5-Blade | PC Board | RH1B, RAHB, RBHB |
| | | | SH2B-62 | 2 | 8-Blade | | RH2B, RAMB, RBMB |
| | | | SH3B-62 | 3 | 11-Blade | | RH3B, RH2LB |
| | | | SH4B-62 | 4 | 14-Blade | | RH4B |
| | SY | F3-20 | SY2S-61 | 2 | 8-Blade | | RY2S, RY22S |
| | | | SY4S-61 | 4 | 14-Blade | | RY4S, RY42S, RY2KS, RY2LS, RM2S, GT5Y |
| | | | SY4S-62 | 4 | 14-Blade | | RY4S, RY42S, RY2KS, RY2LS, RM2S, GT5Y |

*For relay mounting accessories, see page F-22.*

| Specifications | | |
|---|---|---|
| | Rated Insulation Voltage | 300V; except SH1B and SY4S-62: 250V |
| | Rated Current | SR/SH: 10A, SY: 7A (SH1B coil terminal 7A) |
| | Insulation Resistance | 100MΩ minimum |
| | Dielectric Strength | 2,000V AC, 1 minute |
| | Material Grade | UL94V-0 |

**UL Recognized** File No. E62437

**CSA Certified** File No.LR35144
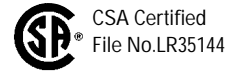
**TÜV PRODUCT SERVICE** File No. BL950813332307 *

**CE** *

✋ 1. *Applicable to DIN rail sockets only.*

# Relay Socket Part Numbering Guide

Relay socket part numbers are composed of 5 part number codes. When ordering a relay socket, select one code from each category.
Example: SR2P-05C

| SR | 2 | P | — | 05 | C |
|---|---|---|---|---|---|
| ① Socket Series | ② No. of Poles | ③ Termination | | ④ Mounting Style | ⑤ Fingersafe Option |
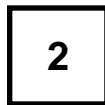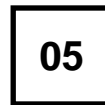
**F**

**Part Numbers: Relay Sockets**

| | Description | Part Number Code | Remarks |
|---|---|---|---|
| **① Socket Series** | SR | SR | For use with RR series relays |
| | SH | SH | For use with RH series relays |
| | SY | SY | For use with RY series relays |
| **② No. of Poles** | 1-pole | 1 | SH series |
| | 2-pole | 2 | SR, SH, and SY series |
| | 3-pole | 3 | SR, and SH series |
| | 4-pole | 4 | SH series |
| **③ Termination** | Tubular pin | P | SR series |
| | Blade | B | SH series |
| | Solder/blade | S | SY series |
| **④ Mounting Styles** | DIN rail snap-mount | 05 | To decide between configuration 05 and 06, see pictures and schematics beginning on page F-5 |
| | | 06 | Model 05 is available as 05C with a fingersafe option; see ⑤ below |
| | Panel mount | 51 | |
| | PC board mount | 61 | |
| | | 62 | |
| **⑤ Fingersafe Option** | With finger-protection terminals | C | Available only on SR, SH, and SY series snap-mount sockets |
| | Without finger-protection terminals | Leave blank | |

✋ 2. *For hold-down springs and clips for DIN rail snap-mount, panel mount, and PC board mount, see page F-4.*
3. *For socket accessories, see page F-22.*

## Hold-Down Springs and Clips Selection Guide

### DIN Rail Snap-Mount Sockets

| Socket Part No. | Applicable Relays, Timer | Hold-Down Spring | Hold-Down Clip |
|---|---|---|---|
| SR2P-05 SR2P-05C | RR2P, RAPP, RBPP | SR2B-02F1 | SFA-203 |
| | RTE-P1, GT3, GT5P | — | SFA-203 |
| SR2P-06 | RR2P, RAPP, RBPP | SR2B-02F1 | SFA-202 |
| | GT3 (8-pin), RTE-P1, GT5P | — | SFA-202 |
| SR3P-05 SR3P-05C | RR3PA | SR3B-02F1 | SFA-203 |
| | RR2KP | SR3P-06F3 | SFA-203 |
| | RTE-P2, GT3 (11-pin) | — | SFA-203 |
| SR3P-06 | RR3PA | SR3B-02F1 | SFA-202 |
| | RR2KP | SR3P-06F3 | SFA-202 |
| | RTE-P2, GT3 (11-pin) | — | SFA-202 |
| SR3B-05 | RR1BA, RR2BA, RR3B, RTE-B | SR3B-02F1 | SFA-202 |
| SH1B-05 SH1B-05C | RH1B, RAHB, RBHB | SY2S-02F1 | SFA-101 SFA-202 |
| SH2B-05 SH2B-05C | RH2B, RAMB, RBMB | SY4S-02F1 | SFA-101 SFA-202 |
| SH3B-05 SH3B-05C | RH3B, RH2LB | SH3B-05F1 | SFA-101 SFA-202 |
| SH4B-05 SH4B-05C | RH4B | SH4B-02F1 | SFA-101 SFA-202 |
| SY2S-05 SY2S-05C | RY2S, RY22S | SY2S-02F1 | SFA-101 SFA-202 |
| SY4S-05 SY4S-05C | RY4S, RY42S, RY2LS, RM2S | SY4S-51F1 | SFA-101 SFA-202 |
| | RY2KS, GT5Y | (SY4S-51F3) | SFA-202 |

### Panel and PC Board Mount Sockets

| Socket Part No. | Applicable Relays, Timer | Hold-Down Spring | Hold-Down Clip |
|---|---|---|---|
| SR2P-51 | RR2P, RAPP, RBPP | SR3P-01F1 | — |
| | GT3 (8-pin), RTE-P1 | — | SFA-402 |
| SR3P-51 | RR3PA | SR3P-01F1 | — |
| | RR2KP | SR3P-51F3 | |
| | GT3 (11-pin), RTE-P2 | — | SFA-402 |
| SR3B-51 | RR1BA, RR2BA, RR3B, RTE-B | SR3B-02F1 | — |
| SH1B-51 SH1B-62 | RH1B, RAHB, RBHB | SY4S-51F1 | SFA-301 SFA-302 |
| SH2B-51 | RH2B, RAMB, RBMB | SY4S-51F1 (SY4S-02F1) | SFA-301 SFA-302 |
| SH2B-62 | RH2B, RAMB, RBMB | SY4S-51F1 (SY4S-02F1) | — |
| SH3B-51 SH3B-62 | RH3B, RH2LB | SY4S-51F1 (SY4S-02F1) | SFA-301 SFA-302 |
| SH4B-51 SH4B-62 | RH4B | SY4S-51F1 SY4S-02F1) | SFA-301 SFA-302 |
| SY2S-51 SY2S-61 | RY2S, RY22S | SY4S-51F1 | SFA-301 SFA-302 |
| SY4S-51 SY4S-61 | RY4S, RY42S, RY2LS | SY4S-51F1 (SY4S-02F1) | SFA-301 SFA-302 |
| | RY2KS | SY4S-51F1 (SY4S-02F3) | SFA-302 |
| | GT5Y | — | SFA-302 |
| SY4S-62 * | RY4S, RY42S, RY2LS, RM2S | SY4S-51F1 (SY4S-02F1) | — |
| | RY2KS | SY4S-51F1 (SY4S-02F3) | — |

*\* Does not accept hold down clips*

1. When mounting relays with a check button onto panel mount or PC board mount sockets, use the hold-down spring shown in parenthesis. Hold-down springs for relays with check buttons are not available for SR2P-51.
2. For close mounting of panel mount or PC mount sockets, use hold-down clips rather than hold-down springs.



SFA-101



SFA-202



SFA-302



SFA-402



SR3P-01F1



SY4S-51F1

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