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Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation, and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!


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## General Purpose

## Power Relay

## FEATURES

- Small package design
- ARC barrier equipped
- Silver Cadium Oxide contact
- High dielectric strength (1,800 Vac)
- High reliability and long life
- Ultra-high sensitivity with quick response time ( 25 ms max.)
- High vibration and shock resistance
- Options include LED indicator, diode protection, and LED indicator/diode protection
- UL listed, CE certified, CSA certified


## TYPICAL APPLICATIONS

- Control panels
- Elevator panels
- Machine tools
- Test equipment


## A WARNING

PERSONAL INJURY DO NOT USE these products as safety or emergency stop devices or in any other application where failure of the product could result in personal injury.

## Failure to comply with

 these instructions could result in death or serious injury.

SZR-LY Series general-purpose power relays are designed for a wide range of applications including power as well as logic control for factory machines and control panels.

SZR-LY Series relays break 10 A loads and are ideal for control panels that require stable and reliable relays.

One standard and three options are available: LED indicator, internal surge protection diode, and LED indicator/diode protection. Honeywell's global sales and distribution channels ensure a rapid response and excellent customer service.

## WARNING

## MISUSE OF DOCUMENTATION

- The information presented in this product sheet is for reference only. Do not use this document as a product installation guide.
- Complete installation, operation, and maintenance information is provided in the instructions supplied with each product.
Failure to comply with these instructions could result in death or serious injury.


## General Purpose

Power Relays
SZR-LY Series
RELAY MODEL SELECTION GUIDE

| Type | Terminal | Contact | Catalog Listing |
| :---: | :---: | :---: | :---: |
| Standard | Plug-in/Solder | DPDT | SZR-LY2-1 |
|  |  | 4PDT | SZR-LY4-1 |
|  | PCB | DPDT | SZR-LY2-1P |
|  |  | 4PDT | SZR-LY4-1P |
| LED Indicator | Plug-in/Solder | DPDT | SZR-LY2-N1 |
|  |  | 4PDT | SZR-LY4-N1 |
| DIODE surge suppression |  | DPDT | SZR-LY2-D1 |
|  |  | 4PDT | SZR-LY4-D1 |
| LED indicator + surge suppression |  | DPDT | SZR-LY2-X1 |
|  |  | 4PDT | SZR-LY4-X1 |

SOCKETS - REQUIRED ACCESSORIES

|  | Din-rail Mounting | Solder Terminal | PCB Terminal |
| :--- | :---: | :---: | :---: |
| Relay Contact |  |  |  |
| DPDT <br> For use with <br> SZR-LY2-1, <br> N1, -D1,-X1 |  |  |  |

CONTACT RATINGS

| Load <br> Ratings | Resistive Load $\text { (p.f. }=1 \text { ) }$ | Inductive load $\text { (p.f. }=0.4, \mathrm{~L} / \mathrm{R}=7 \mathrm{~ms} \text { ) }$ |
| :---: | :---: | :---: |
| Rated load | $110 \mathrm{Vac}, 10 \mathrm{~A}$ $24 \mathrm{Vdc}, 10 \mathrm{~A}$ | $110 \mathrm{Vac}, 7.5 \mathrm{~A}$ <br> $24 \mathrm{Vdc}, 5 \mathrm{~A}$ |
| Carry current | 10 A |  |
| Max. operating voltage | 250 Vac, 125 Vdc |  |
| Max. operating current | 10 A |  |
| Max. switching capacity | 1,100 VA, 240 W | 825 VA, 120 W |
| Min. permissible load | $5 \mathrm{Vdc}, 100 \mathrm{~mA}$ |  |

## General Purpose

## Power Relays

SZR-LY Series

COIL RATINGS (DPDT)

|  |  | Rated Current (mA) |  |  | Coil Inductance (H) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Rated Voltage (V) | 50 Hz | 60 Hz | $\begin{gathered} \text { Coil } \\ \text { resistance } \end{gathered}$ $(\Omega)$ | Armature OFF | Armature ON | Pick-up Voltage (V) | Dropout Voltage (V) | Maximum Voltage (V) | Power Consumption <br> (W) |
| AC | 6 | 214.1 | 183 | 12.2 | 0.04 | 0.08 | Max.$80 \text { \% }$ | $\begin{aligned} & \text { Min. } \\ & 30 \% \end{aligned}$ | 110\% | Approx.$\begin{gathered} 1.0 \mathrm{~W} \text { to } 1.2 \mathrm{~W} \\ (60 \mathrm{~Hz}) \end{gathered}$ |
|  | 12 | 106.5 | 91 | 46 | 0.17 | 0.33 |  |  |  |  |
|  | 24 | 53.8 | 46 | 180 | 0.69 | 1.3 |  |  |  |  |
|  | 50 | 25.7 | 22 | 788 | 3.22 | 5.66 |  |  |  |  |
|  | 100/110 | 11.7/12.9 | 10/11 | 3,750 | 14.54 | 24.6 |  |  |  | $\begin{gathered} \text { Approx } \\ 0.9 \mathrm{~W} \text { to } 1.1 \mathrm{~W} \\ (60 \mathrm{~Hz}) \end{gathered}$ |
|  | 110/120 | 9.9/10.8 | 8.4/9.2 | 4,430 | 19.2 | 32.1 |  |  |  |  |
|  | 200/220 | 6.2/6.8 | 5.3/5.8 | 12,950 | 54.75 | 94.07 |  |  |  |  |
|  | 220/240 | 4.8/5.3 | 4.2/4.6 | 18,790 | 83.5 | 136.4 |  |  |  |  |
| DC | 6 | 150 |  | 40 | 0.17 | 0.33 | $\begin{aligned} & \text { Max. } \\ & 80 \% \end{aligned}$ | $\begin{aligned} & \text { Min. } \\ & 10 \% \end{aligned}$ | 110\% | Approx.$0.9 \text { W }$ |
|  | 12 | 75 |  | 160 | 0.73 | 1.37 |  |  |  |  |
|  | 24 | 36.9 |  | 650 | 3.2 | 5.72 |  |  |  |  |
|  | 48 | 18.5 |  | 2,600 | 10.6 | 21.0 |  |  |  |  |
|  | 100/110 | 9.1/10 |  | 11,000 | 45.6 | 86.2 |  |  |  |  |

COIL RATINGS (4PDT)


Note 1: The rated current and coil resistance are measured at a coil temperature of $23^{\circ} \mathrm{C}\left[73.4^{\circ} \mathrm{F}\right]$ with tolerances of $+15 \%$, $-20 \%$ for AC rated current and $\pm 15 \%$ for DC coil resistance.
Note 2: The rated current of N 1 and X 1 types is 4 mA higher than the value in the table above.

## Power Relays

SZR-LY Series
SPECIFICATIONS

| Contact material |  | Silver Cadium Oxide |
| :---: | :---: | :---: |
| Contact resistance |  | Max. 50 MOhm |
| Operate time |  | Max. 25 ms |
| Release time |  | Max. 25 ms |
| Operating frequency | Mechanical | 18,000 operations per hour |
|  | Electrical | 1,800 operations per hour |
| Insulation resistance |  | Min. 100 Mw at 500 Vdc |
| Dielectric withstand voltage |  | 1,800 Vac $50 \mathrm{~Hz} / 60 \mathrm{~Hz}$ for one minute between non-continuous current carrying terminals and between coil thermals and contact terminals $1,000 \mathrm{Vac} 50 / 60 \mathrm{~Hz}$ for 1 minute between contacts of same polarity |
| Vibration resistance | Mechanical durability | 10 Hz to 55 Hz at double amplitude of 1.0 mm |
|  | Malfunction durability | 10 Hz to 55 Hz at double amplitude of 1.0 mm |
| Shock resistance | Mechanical durability | $1,000 \mathrm{~m} / \mathrm{s}^{2}$ (approx. 100 g ) |
|  | Malfunction durability | $200 \mathrm{~m} / \mathrm{s}^{2}$ (approx. 20 g ) |
| Service life | Mechanical | AC: Min. 50 million operations (at operating frequency of 18,000 operations/hour) DC: Min. 100 million operations (at operating frequency of 18,000 operations/hour) |
|  | Electrical | DPDT: Min. 500,000 operations (at operating frequency of 1,800 operations/hour) 4PDT: Min. 200,000 operations (at operating frequency of 1,800 operations/hour) |
| Weight |  | DPDT: Approximately 35 g 4PDT: Approximately 65 g |

Note 1: The data shown above are of initial value

## CHARACTERISTIC DATA

Electrical life


Electrical life


## General Purpose

Power Relays

## CATALOG LISTING MATRIX



## General Purpose

Power Relays

## SZR-LY Series

## HOLDING CLIPS

- Holding clips are included with the sockets
- Holding clips for the SLF-08N cannot be removed once inserted
- The holding clip for the SLF-14 can be removed by pushing the side of the inserting hold with a sharp object
- Holding clips for all SMB sockets are wire for easy removal
- Holding clips are to be inserted into the slots provided on the socket

DIMENSIONS (For reference only - mm/in)
Figure 1. Dimensions
For SZX-SLF-14 sockets


Figure 2. Dimensions
For SZX-SLF-08N sockets


Figure 3. Dimensions For all SZX-SLB sockets


## General Purpose <br> Power Relays

FIGURE 4. DIMENSION, CIRCUIT DIAGRAM, TERMINAL ARRANGEMENT, AND MOUNTING HOLE FOR SZR-LY2-1, SZR-LY2-N1, SZR-LY2-D1, and SZR-LY2-X1


FIGURE 5. DIMENSION, CIRCUIT DIAGRAM, TERMINAL ARRANGEMENT, AND MOUNTING HOLE FOR SZR-MY2-1P and SZR-MY4-1P


The circuit diagram is the same wit standard type of SZR-MY2-1 or the SZR-MY4-1

## General Purpose

## Power Relays

SZR-LY Series

FIGURE 6. DIMENSION, CIRCUIT DIAGRAM, TERMINAL ARRANGEMENT, AND MOUNTING HOLE FOR SZR-LY4-1, SZR-LY4-N1, SZR-LY4-D1, and SZR-LY4-X1


FIGURE 7. CIRCUIT DRAWING FOR SZR-LY2- and SZR-LY4-


SZR-LY Series

SOCKETS


FIGURE 10. SZX-SLB-08



## WARRANTY/REMEDY

Honeywell warrants goods of its manufacture as being free of defective materials and faulty workmanship. Contact your local sales office for warranty information. If warranted goods are returned to Honeywell during the period of coverage, Honeywell will repair or replace without charge those items it finds defective. The foregoing is Buyer's sole remedy and is in lieu of all other warranties, expressed or implied, including those of merchantability and fitness for a particular purpose.

Specifications may change without notice. The information we supply is believed to be accurate and reliable as of this printing. However, we assume no responsibility for its use.

While we provide application assistance personally, through our literature and the Honeywell web site, it is up to the customer to determine the suitability of the product in the application.

For application assistance, current specifications, or name of the nearest Authorized Distributor, contact a nearby sales office. Or call:

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