

Part Number* Relay Description

SR75-1 Solid-State Relay with Terminals for Through-Hole mount

SR75-1S Solid-State Relay with Terminals for Surface Mount

* A 'W' or 'T' suffix denoting the **S** Teledyne reliability screening level, must be added to the part number.

ELECTRICAL SPECIFICATIONS

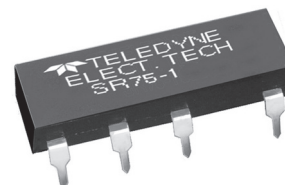
(-55°C TO 105°C, Ambient Temperature Unless Otherwise Specified)

INPUT (CONTROL) SPECIFICATIONS

	Min	Max	Units
Control Voltage Range (See Note 2)	3.8	32.0	Vdc
Input Current @ 5 Vdc (See Figure 1)		11.0	mA
Must Turn-On Voltage (See Note 3)	3.8		Vdc
Must Turn-Off Voltage		1.5	Vdc
Reverse Voltage Protection		-32.0	Vdc

OUTPUT (LOAD) SPECIFICATION

	Min	Max	Units
Load Voltage Rating		60	Vdc
Transient Blocking Voltage		80	Vdc
Output Current Rating (See Figure 2)		1.5	Adc
On Resistance (See Figure 3, Note 8)		0.5	Ohm
Leakage Current at Rated Voltage		100	μA
Turn-On Time		4.5	ms
Turn-Off Time		0.5	ms
dV/dt @ 60 Vdc (See Note 8)		100	V/μs
Electrical System Spike (See Note 9)		± 600	Vpk
Input to Output Capacitance at 1 MHz (See Note 9)		20	pF
Dielectric Strength	1000		Vrms
Insulation Resistance	10 ⁸		Ohm
Junction Temperature		130	°C
Thermal Resistance (Junction to Ambient)		90	°C/W
Solderability (10 sec)		260	°C

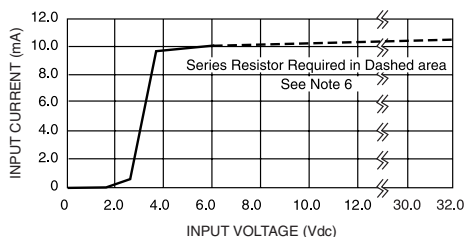


FEATURES/BENEFITS

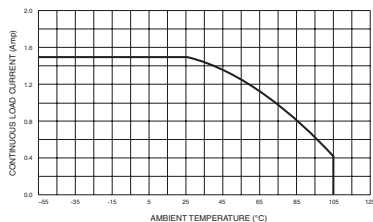
- Short-Circuit Protected: Prevents damage to system components, assemblies and system wiring
- Optical Isolation: Isolates control circuits from load transients
Eliminates ground loops and signal ground noise
- Low Off-State Leakage: For high off-state impedance
- Switches High Currents: To 1.5 Adc
- High Noise Immunity: Control signals isolated from switching noise
- High Dielectric Strength: For safety and for protection of control and signal level circuits

DESCRIPTION

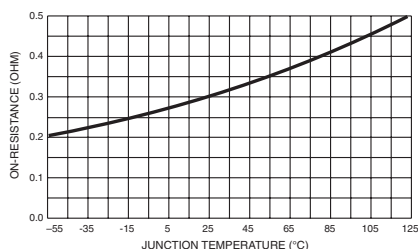
The SR75-1 solid-state relay utilizes a power FET switch that is protected against short-circuit and overload currents. The short-circuit protection feature not only provides protection should a short or overload occur while the relay is on, but will also provide protection should the relay be switched into a short. In either case, the relay will sense the short-circuit condition and then block it indefinitely until the short is removed and the unit is reset by cycling the input control. Using the SR75-1 to switch power sources and loads can prevent fires, damage to system assemblies and system wiring. The power FET output offers low "ON" resistance and can switch loads in either the high or the low side of the power line. The SR75-1 is packaged in a 16-pin DIP package with either surface-mount or through-hole mounting available.



INPUT CURRENT VS VOLTAGE
FIGURE 1

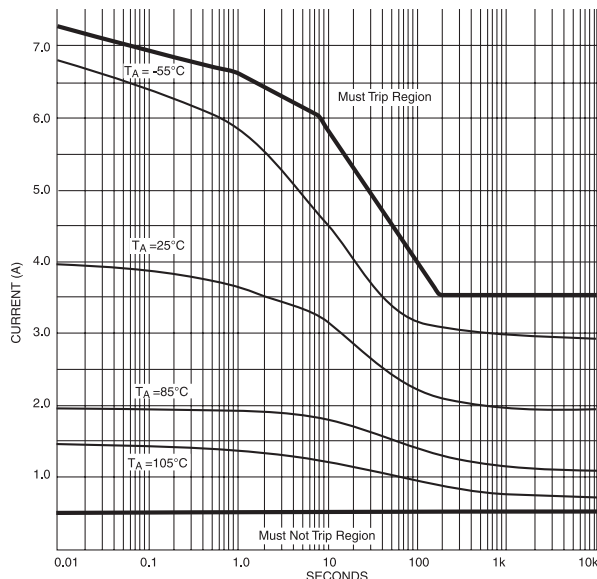
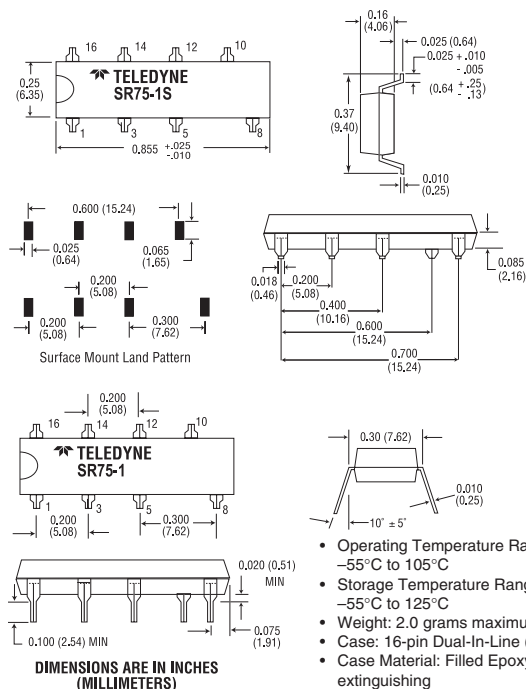


LOAD CURRENT DERATING CURVE
FIGURE 2 (SEE NOTE 7)



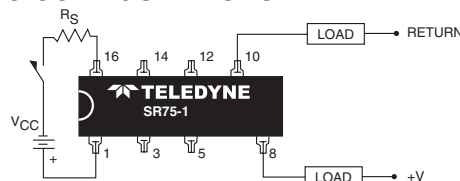
TYPICAL ON RESISTANCE VS T_J
FIGURE 3

MECHANICAL SPECIFICATIONS

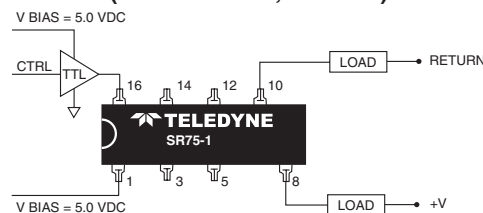


TRIP TIME VS. OVERLOAD CURRENT
FIGURE 4

WIRING CONFIGURATIONS



SHORT-CIRCUIT PROTECTED DC LOADS
(SEE NOTES 2, 4 AND 6)



SHORT-CIRCUIT PROTECTED AC LOADS
(SEE NOTE 6)

NOTES:

1. The input voltage is 5.0 Vdc for all tests unless otherwise specified.
2. For input voltage greater than 6.0 Vdc a series resistor must be used to limit the power dissipation on the input of the relay. The resistor value should be selected using the following equation:
$$R = (V_{BIAS} - 6 \text{ volts}) / 11 \text{ mA}$$
3. The input transitions are to be less than 1.0 msec duration.
4. Inductive loads must be diode suppressed.
5. Reversing the output polarity when the relay is in overload or is sustaining a short circuit may cause permanent damage.
6. Loads may be switched in either the high side or the low side of the power source.
7. Continuous load current rating is determined with relay mounted on a printed circuit card.
8. Tested at 25°C only.
9. Qualification and/or random sample test only.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Teledyne Relays:

[SR75-1SW](#) [SR75-1T](#) [SR75-1ST](#) [SR75-1W](#)

Компания «Life Electronics» занимается поставками электронных компонентов импортного и отечественного производства от производителей и со складов крупных дистрибьюторов Европы, Америки и Азии.

С конца 2013 года компания активно расширяет линейку поставок компонентов по направлению коаксиальный кабель, кварцевые генераторы и конденсаторы (керамические, пленочные, электролитические), за счёт заключения дистрибьюторских договоров

Мы предлагаем:

- Конкурентоспособные цены и скидки постоянным клиентам.
- Специальные условия для постоянных клиентов.
- Подбор аналогов.
- Поставку компонентов в любых объемах, удовлетворяющих вашим потребностям.
- Приемлемые сроки поставки, возможна ускоренная поставка.
- Доставку товара в любую точку России и стран СНГ.
- Комплексную поставку.
- Работу по проектам и поставку образцов.
- Формирование склада под заказчика.
- Сертификаты соответствия на поставляемую продукцию (по желанию клиента).
- Тестирование поставляемой продукции.
- Поставку компонентов, требующих военную и космическую приемку.
- Входной контроль качества.
- Наличие сертификата ISO.

В составе нашей компании организован Конструкторский отдел, призванный помогать разработчикам, и инженерам.

Конструкторский отдел помогает осуществить:

- Регистрацию проекта у производителя компонентов.
- Техническую поддержку проекта.
- Защиту от снятия компонента с производства.
- Оценку стоимости проекта по компонентам.
- Изготовление тестовой платы монтаж и пусконаладочные работы.



Тел: +7 (812) 336 43 04 (многоканальный)

Email: org@lifeelectronics.ru

www.lifeelectronics.ru