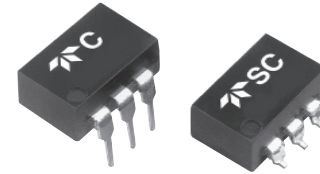


Part Number	Description
C63-10	1A, 60 Vdc short-circuit protected solid-state relay for through-hole mounting
SC63-10	1A, 60 Vdc short-circuit protected solid-state relay for surface mount



ELECTRICAL SPECIFICATIONS

(–40°C to +85°C ambient temperature unless otherwise specified)

INPUT (CONTROL) SPECIFICATIONS

	Min	Max	Units
Input Current	8	20	mA
Input Voltage @ 10 mA	2	3	Vdc
Must Turn-On	8		mA
Must Turn-Off Current		100	µA
Must Turn-Off Voltage		0.8	Vdc
Reverse Polarity	–6		Vdc

OUTPUT (LOAD) SPECIFICATIONS

	Min	Max	Units
Load Voltage Range	0	60	Vdc
Output Current Rating (See Figure 4)		1.0	A
Leakage Current at Rated Voltage		10	µA
Transient Blocking Voltage @25°C		100	Vdc
Output Capacitance @25Vdc (25°C)		600	pF
Output Voltage Drop @1A		0.55	Vdc
On Resistance		0.55	Ohm
Turn-On Time		2.0	ms
Turn-Off Time		1.0	ms
Trip Overload	(See Figure 7)		A

FEATURES/BENEFITS

- Short-circuit protected: Prevents damage to system components, assemblies and system wiring
- Optical isolation: Isolates control circuits from load transients and eliminates ground loops and signal ground noise
- Low off-state leakage
- Switches high currents: To 1.0 Amp
- 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 C63-10 solid-state relay utilizes a power FET switch that is protected against short circuits and overload currents. The short-circuit protection feature provides protection when a short or overload occurs while the relay is on as well as when the relay is switched into an overload. In either case, the relay will sense the overload condition and then block it indefinitely until the overload is removed and the unit is reset by cycling the input control. Using the C63-10 to switch power sources and loads prevents 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 C63-10 is packaged in a 6-pin DIP package.

MECHANICAL SPECIFICATION

ENVIRONMENTAL SPECIFICATION

SC63-10

DATE CODE

0.25 (6.35)

0.195 (4.95)

0.39 (9.91)

0.025 (0.64) MIN

0.065 (1.65) MIN

0.290 (7.37)

0.200 (5.08)

0.100 (2.54)

SURFACE MOUNT LAND PATTERN

0.37 (9.40)

0.010 (0.25)

0.025 (0.64) REF

0.018 (0.46)

0.175 (4.43)

Weight: 0.035 oz. (1g) maximum
Case: 6-pin dual in-line filled epoxy

TOLERANCES: .XX± = ±.010 (±.25), .XXX± = ±.005 (±.13)
DIMENSION STYLE: XXX= INCHES (XXX)= MILLIMETERS
CONTROLLING DIMENSIONS ARE IN INCHES. METRIC DIMENSIONS ARE SUPPLIED FOR REFERENCE PURPOSES ONLY.

PIN-OUTS

PIN NO.	FUNCTION
1	+IN
2	-IN
3	-IN
4	-OUT
5	-OUT
6	+OUT

C63-10

PIN 1 INDEX

0.200 (5.08)

0.085 (2.16)

0.100 (2.54) MIN

0.020 (0.51) MIN

0.100

0.30 (7.62)

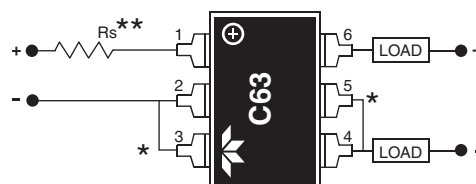
0.15 (3.81)

10° ±5°

0.01 (0.2)

Figure 1

TYPICAL WIRING DIAGRAM



*Shorted internally
**Series resistor required to limit input current to 20mA maximum

Figure 2

FUNCTIONAL BLOCK DIAGRAM

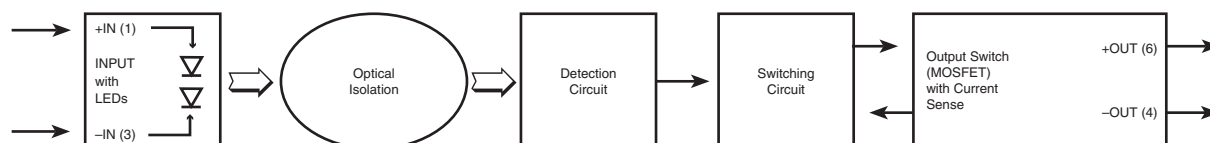


Figure 3

CONTROL CURRENT VS. INPUT VOLTAGE

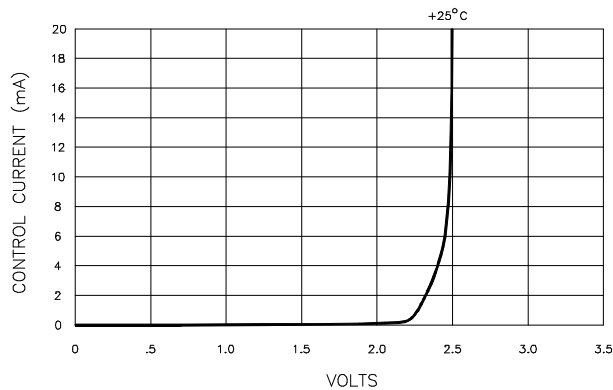


Figure 4

TYPICAL TURN-ON TIME VS. INPUT CURRENT

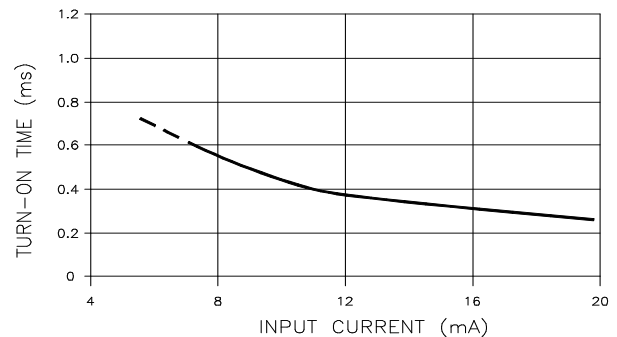


Figure 5

LOAD CURRENT VS. AMBIENT TEMPERATURE

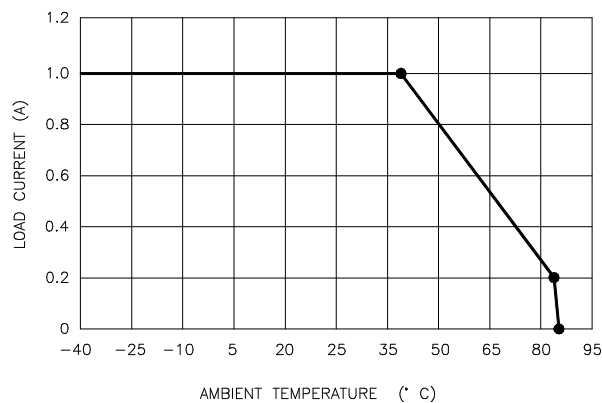


Figure 6

TYPICAL OVERLOAD TRIP CURRENT VS. TIME

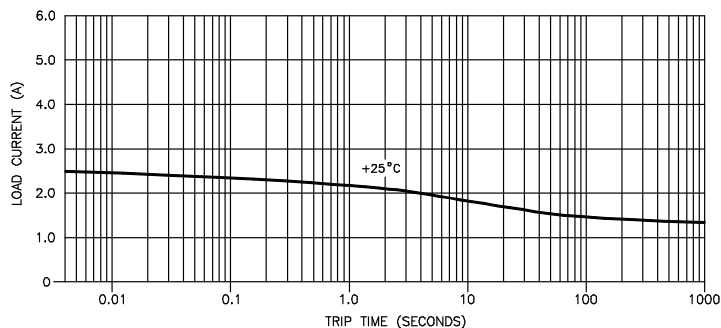


Figure 7

NOTES:

1. The C63-10 relay's input current should be limited to between 8 and 20mA. An external resistor whose value $= (V_{IN} - 2.5 \text{ volts}) \div 0.012 \text{ Amps}$ is a good choice for limiting input current.
2. Relay input transitions should be less than 1.0 millisecond.
3. Loads may be attached to either the positive or negative output terminal.
4. Maximum load current ratings are with the relay in free air and soldered to a printed circuit board.
5. Timing is measured from the input current transition to the 10% or 90% points on the output voltage transition.
6. Overload conditions (including shorted loads) are specified for load supply voltages to 60 Vdc maximum.
7. For through-hole-PCB-solder-attaching C63-10 series relays, the wave-solder or solder pot operations are limited to +260°C maximum for 10 seconds, maximum.
8. For surface-mount-solder-attaching SC63-10 series relays, in IR heating or convection heating systems, the component temperature is limited to +235°C maximum for 10 seconds maximum.

Данный компонент на территории Российской Федерации

Вы можете приобрести в компании MosChip.

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

<http://moschip.ru/get-element>

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

Офис по работе с юридическими лицами:

105318, г.Москва, ул.Щербаковская д.3, офис 1107, 1118, ДЦ «Щербаковский»

Телефон: +7 495 668-12-70 (многоканальный)

Факс: +7 495 668-12-70 (доб.304)

E-mail: info@moschip.ru

Skype отдела продаж:

moschip.ru

moschip.ru_4

moschip.ru_6

moschip.ru_9