

COTOMOS® RELAY USE CASES:

- Mechanical relay replacement
- On/off switching of AC and DC loads
- Providing electrical isolation between control and load
- Controlling of Low-Level Analog Signals
- PC Board space saving
- High Voltage or High Current switching
- Controlling of motors, valves, and electromagnets in energy systems
- Use in data acquisition systems
- Use in semiconductor test boards

TARGET APPLICATIONS

Energy & Infrastructure

- Power Distribution
- Solar Tracking Systems
- Wind Turbines
- Others (Network Disconnect System- Photovoltaic (PV) Diode Arrays, BMS and UPS Systems)

Building Equipment

- Lighting Equipment
- Warehouse/Theatrical Lighting Systems
- Security and Access Control Systems
- HVAC System

Industrial Automation

- Machine Tools
- Elevators
- Conveyor Systems
- Industrial Robotics
- Material Handling Equipment

Industrial OEM

- Electronics Equipment
- Packaging Devices
- Plastic and Printing Devices
- ATE (Automated Test Equipment)

ADVANTAGES OVER ELECTROMECHANICAL RELAYS

Long Life Expectancy

Solid-state relays use electronics instead of mechanical devices for load switching while providing a life cycle expectancy compared to conventional mechanical relays. This reduces product replacement and downtime.

Low Maintenance

There are no moving parts or contacts to wear out or be affected by vibration and shock. Parts replacement and downtime are reduced drastically, if not eliminated altogether.

Reduced Power Cost

Solid-state relays typically require 25 times less power than electromechanical relays and generate less heat. This means the electronic board (PCB) can typically be smaller, thereby reducing PCB space requirements.

KEY SELLING POINTS OF COTOMOS® SOLID STATE RELAYS

- **Long Life** - Due to the relay construction, there is unlimited life operation.
- **Low Leakage Current** - For measuring slight current, the low leakage current type is required.
- **Space Saving** - Compact, Thin, High-Density Mounting
- **No Contact Chattering and Bounce**
- **Fast Switching Speed**
- **Low Noise**
- **Power Saving** - Due to Low Operating Current
- **Ability to Control Various Load Types** (e.g. Relays, Lamps, LEDs, Heaters, Motors)
- **Vibration Proof and Shock Proof**
- **Low Off-Set Voltage**
- **High Reliability**

FORMS & PACKAGE STYLES

Available in Form A, Form B, Form A+B (Form C) form factors to service a wide range of switching requirements. CotoMOS® relays are also available in various package styles that include a 4-, 6- and 8-pin DIP, in through-hole and surface mount packages. Additionally, 4- and 8-pin SOP surface mount packages are available. Capable of switching from 40V up to 1,700V, the current switching capability ranges from 30mA to 5A.

NEW COTOMOS® PRODUCT RELEASES!...

Silicon Carbide (SiC) MOSFET Relay – the CotoMOS® S117X...supports and sustains load voltages of 1700V while carrying a current of up to 170 mA. Target markets include Battery Management Systems, Factory Automation Control, EV Charging stations and Solar Inverters & Smart Grids.

(3) Miniature, High-Current MOSFET Relays – the C241S, C236S & C224S... featuring high-current switching capabilities up to 5A and handling up to 60V conditions while providing up to 1500V of input to output isolation and a tiny SOP-4 package. Ideal for any application requiring low on-resistance.

POPULAR COTOMOS® BY APPLICATION

High-Current Series: CX24/26/28/36/41/47

Desirable Features:

- High current switching capability
- Low on resistance

High Voltage Series (Medical - BMS, Solar):

CX30/32/38/40 & Our NEW SiC Relay S117X

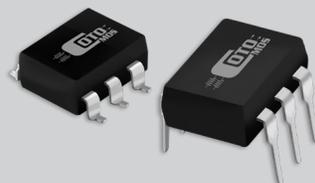
Desirable Features:

- Capable of handling up to 1,700V load conditions
- Low on resistance

ATE (Automated Test Equipment) Series: CS147/C330S

Desirable Features:

- Fast switching
- High sensitivity, low ON resistance
- High Load current



COTOMOS® SOLID STATE RELAYS FAQs

Q. What is a Solid State Relay (SSR)?

A. A CotoMOS® (Solid-State-Relay) is a relay with no moving contacts, and employs semiconductor switching elements like Mosfet transistors, and diodes. Input and output sides are isolated using photocouplers.

Q. How are CotoMOS® different from electromechanical relays?

A. Both perform the same switching function, but their constructions are different. CotoMOS® do not have any moving parts (such as an armature or metal contacts) making them free of noise and arcs.

Q. Why should one consider using CotoMOS®?

A. CotoMOS® relays have an unlimited number of switching operations, coupled with the ability of high-speed switching. There is no concern of possible contact erosion, as CotoMOS® use semiconductor switching elements.

Q. What mounting types are available?

A. CotoMOS® relays have PCB through-hole and surface mount packages.

COTOMOS® ADVANTAGES OVER COMPETITORS

Short Lead-Time (14-16 weeks)

Additionally, Coto Technology continues to provide exceptional technical and operational performance.

Specializing in High Voltage & High Current Applications

CotoMOS® relays offer high voltage and high current models for specialized markets such as BMS (Battery Management Systems), solar panel arrays, and instrumentation.

MAJOR FOCUS - TOP 10 COTOMOS® BY REVENUE

SERIES	FEATURE / BENEFIT
48	100V, 280mA/350mA. The advantage is the $R_{(on)}$ 2 Ω (max 3 Ω) and the $C_{(out)}$ 37pF, CxR 74 / <i>For medium voltage, low voltage drop or multiplexer applications.</i>
47	80V, 1A/1.25A, 0.15 Ω / 0.5 Ω , $C_{(out)}$ 190pF, CxR 29 / <i>For medium voltage, medium current applications.</i>
28	40V, 4.5A, 0.33 Ω / 0.05 Ω , 690pF, CxR 23 / <i>For high current, low voltage drop applications and DC applications up to 8.5A.</i>
26	40V, 1.6A/2A, 0.085 Ω / 0.5 Ω , 240 pF, CxR 20 / <i>For low voltage, medium current applications.</i>
34	200V, 160mA/200mA, 6 Ω / 8 Ω , 130pF, CxR 780 / <i>For general, low-cost applications.</i>
36	60V, 2.5A, 0.09 Ω / 0.14 Ω , 470pF, CxR 42 / <i>For <60V, high current applications.</i>
37	60V, 320mA/400mA, 0.8 Ω / 1.6 Ω , 195pF, CxR 156 / <i>For general low voltage drop applications.</i>
38	600V, 60mA/80mA, 35 Ω / 60 Ω , 95pF, CxR 3325 / <i>For HV multiplexer and 110VAC/220VAC applications.</i>
45	60V, 100mA, 5 Ω /14 Ω , 20pF, CxR 100, $T_{(on)}$ typ 0.05ms / <i>For Multiplexer applications.</i>
24	40V, 3.5A, 0.045 Ω /0.07 Ω , 810pF, CxR 36, $T_{(on)}$ typ 0.05ms / <i>For high current applications</i>