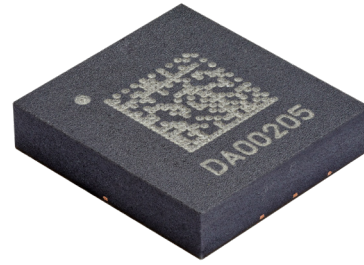


# MM9200



## SPST Power Switch

The MM9200 is a high-power SPST micro-electromechanical switch. The innovative Ideal Switch® technology enables highly reliable micro-electromechanical switches capable of carrying high voltage and high current in a small form factor.

The MM9200 provides ultralow on-state resistance, low leakage current and high voltage stand-off, with greater than 1 billion switching cycles. Because of its long lifetime, extremely low current consumption, and small form factor, the MM9200 is an ideal solution for replacing electromechanical relays, as well as solid-state switches such as IGBT and MOSFETs where size, weight, power efficiency and thermal management are critical system-level design parameters.

### FEATURES

- Low On-State resistance 10 mΩ (typ.)
- Voltage standoff (AC or DC): 300V
- Rated continuous current (AC or DC): 10A
- Fast switching time (10µs to open, 10µs to close)
- 1 billion switching operations
- QFN and low-profile 5 mm x 5 mm WL-CSP Package options available

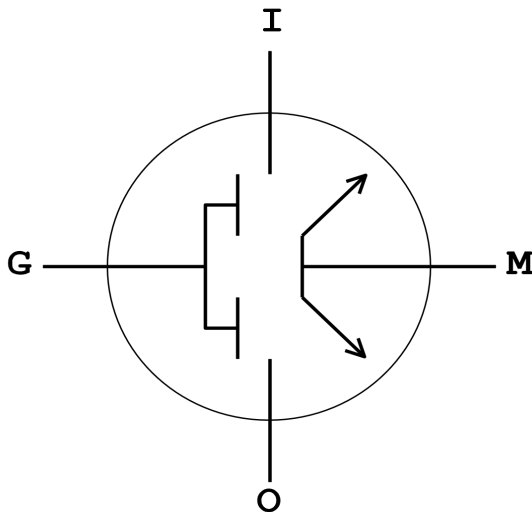
### APPLICATIONS

- LV industrial controls
- Solid State Relay replacement
- Electromechanical Relay replacement

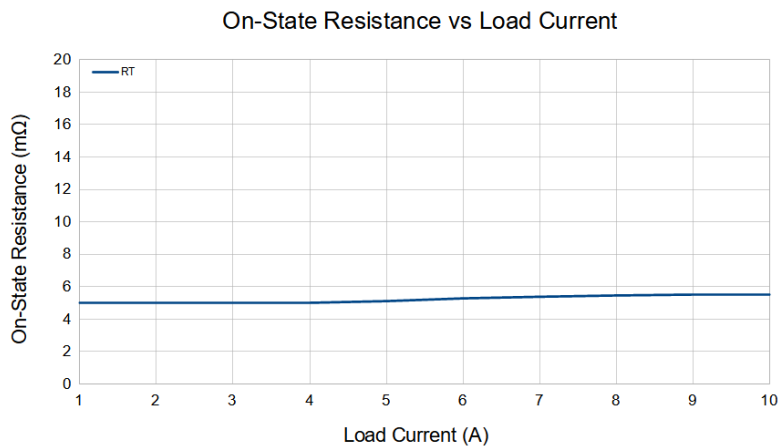
### MARKETS

- Industrial automation
- Sustainable buildings
- Transport electrification
- Infrastructure modernization

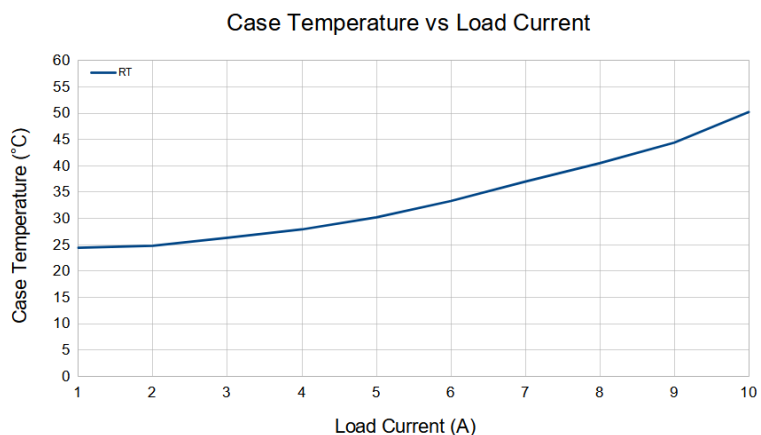
FIG. 1 MM9200 Functional Block Diagram



**FIG. 2** RON vs Load Current



**FIG. 3** Case Temperature vs Load Current



**TABLE 1** DC and AC Electrical Specifications

Parameter	Min	Typ	Max	Unit
On-State Contact Resistance		10	20	mΩ
Off-State Contact Leakage Current		5		pA
Continuous Current			10	A (AC/DC)
Gate Bias Current		1	10	nA
Capacitance Off-State, INPUT to OUTPUT pin		0.55		pF
Switching Time On/Off		10		us
Mechanical Endurance		1x10 <sup>9</sup>		Cycle
Standoff Voltage			300	VAC PK/VDC

FIG. 4 MM9200: 1P1S Low Temperature Rise at 5A with 5mohm

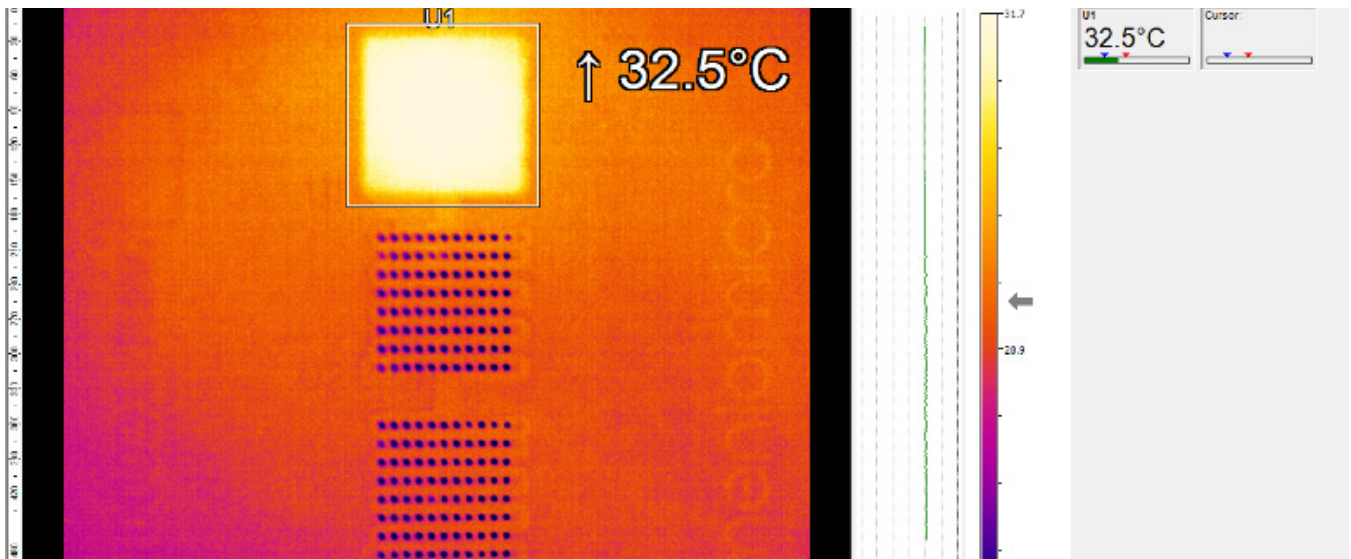


FIG. 5 MM9200: 2P1S Low Temperature Rise at 5A with 2.6mohm

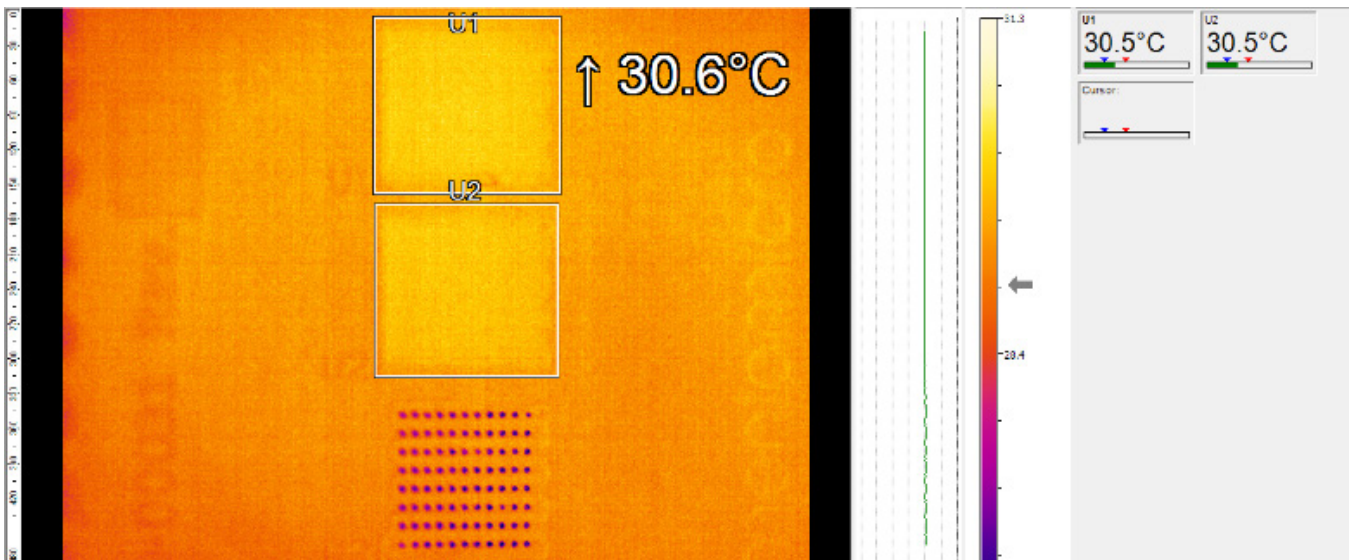


FIG. 6 MM9200: 3P1S Low Temperature Rise at 5A with 1.8mohm

