

53286**Product Preview****ISOLATED OUTPUT DC****SOLID STATE POWER CONTROLLERS****Mii**

MICROCIRCUITS DIVISION

Features:

- Mechanically similar to "Hockey Puck" Solid State Relays. Package WLH = (1.80" x 2.3" x 0.75")
- SPST, normally open DC power control
- I²T circuit protected output with Switch Status Output
- Power MOSFET output with Low on-state resistance -55°C to +125°C

DESCRIPTION:

The 53286 Isolated DC Solid-State Power Controller is mechanically similar to the standardized industrial Solid State Relay incorporating circuit breaker functions of I²t overload protection and peak current fault protection. A status signal indicates the state of the Output Switch.

Transformer and opto coupling between the Control / Status and Output provides isolation of 750 V RMS. A Power MOSFET output switch provides soft start and low ON voltage drop for cool operation.

The Control input is CMOS or TTL logic compatible and operates from a bias supply of 4.5 to 5.5VDC.

This SSR is a combined relay and circuit breaker. Output current is continuously monitored and responds to an over-current condition with an I²T trip curve by opening the output. Over-current conditions include Over-Load and Shorted Output during Turn-On. An open-collector Output Status is available to indicate the State of the Output Switch MOSFET. The output remains blocked until the short is removed and the unit reset. This feature prevents damage to the controller while averting further system damage caused by the short circuit. Output Status is an Active Low for Control Off and Open into a pull up resistance for OFF or Tripped. Commanding the SSR OFF than back ON resets a Tripped condition.

Applications:

- 10A / 28V bus applications
- 5A / 270V bus applications
- Vehicle Power Distribution

**ELECTRICAL CHARACTERISTICS:**

Isolation voltage (60Hz sine wave).....	500 / 750V RMS
Load voltage Max (Withstanding).....	100 / 500V VDC
Load Current Rating.....	10A / 5A & special
A Load Current I ² t Max	Less Than 8 or 4 Times Rated Operating Current / Self Protecting
Bias supply voltage, V _{DD}	4.5 to 5.5 VDC
Control Voltage Range	1 Volt above V _{DD} / Volt below Return
On State Voltage Drop At rated load	0.8VDC
On State Resistance	0.077 / 0.154 Ω
Status Output (Open Collector)32 V max OFF/ 0.4V ON @ 5mA
Operating temperature	-55°C to +125°C Case
Storage temperature	-55°C to +125°C

Pin 1	Status	Pin 4	Control
Pin 2	+ 5V	Pin 5	+ Output
Pin 3	Input Return	Pin 6	- Output

Pin Designation (CCW from Pin 1 dot)

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