

53251**OPTICALLY ISOLATED SOLID-STATE
AC RELAY, ZERO VOLTAGE TURN-ON,
400 Hz, 2 A (with Heat Sink)**HYBRID MICROELECTRONICS
PRODUCTS DIVISION**Features:**

- SPST Normally Open
- 1500 VRMS Optical Isolation
- TTL/CMOS Compatible Input
- Zero Voltage Turn-On

Applications:

- Switching Heaters
- Motor Power Control
- Drive Reactive Load

DESCRIPTION

The Mii 53251 is a SPST solid-state AC relay. This small light weight device is resistant to damage from shock and vibration. Solid state construction makes it immune to contact related problems inherent in electro-mechanical relays.

Effective isolation between input and output stages of 1500 VRMS is achieved through optical coupling. Parallel output SCRs allow switching of both resistive and reactive loads with power factors to 0.2. Zero crossing turn-on synchronization of the output SCRs is employed to give the lowest possible EMI. The control input is TTL/CMOS compatible and will accommodate supplies ranging from 3.8 to 32 VDC.

This solid state AC relay is ideal for applications where high reliability, low power actuation, small size, and light weight are design considerations.

ABSOLUTE MAXIMUM RATINGS

Continuous Output Voltage.....	250 VRMS
Load Current (With Heat Sink)	2 A
Control Logic Input Voltage	32 VDC
Operating Temperature	-55°C to +110°C
Storage Temperature	-55°C to +125°C

Micropac Industries cannot assume any responsibility for any circuits shown or represent that they are free from patent infringement.
Micropac reserves the right to make changes at any time in order to improve design and to supply the best product possible.

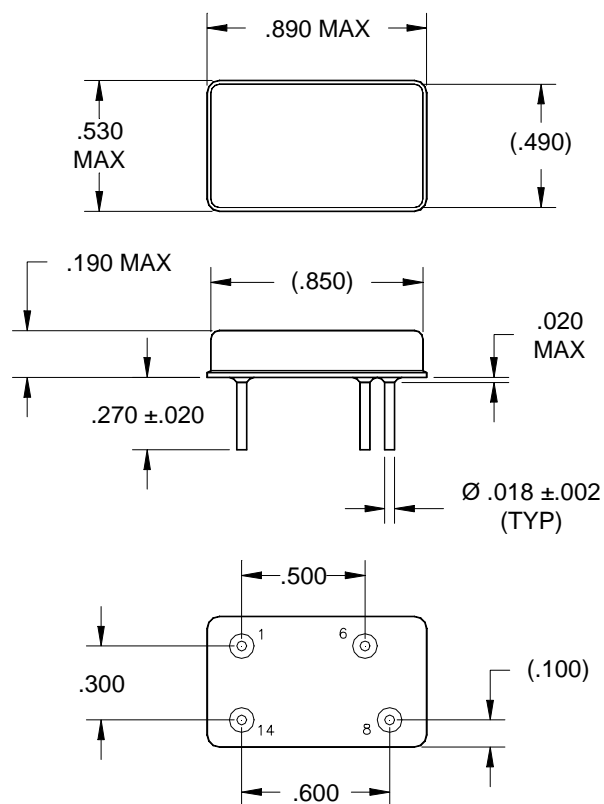
OPTICALLY ISOLATED, ZERO VOLTAGE TURN-ON, 400Hz, 2A SOLID STATE AC RELAY

ELECTRICAL CHARACTERISTICS

@ T_C = 25°C

PARAMETER	CONDITIONS	MIN	MAX	UNITS
Control Characteristics				
Input Voltage Range		3.8	32	VDC
Assured Turn-On Voltage		3.8		VDC
Assured Turn-Off Voltage			1.5	VDC
Input Current			18	mA
Turn-On Time			½	Cycle
Turn-Off Time			1	Cycle
Dielectric Strength	60 Hz, Sine Wave	1500		VRMS
Insulation Resistance	500 VDC	100		MΩ
Output Characteristics				
Output Current	with Heat Sink		2	A
Output Voltage	40 to 440 Hz		250	VRMS
Output Voltage Drop			1.7	VRMS
Leakage Current			3	mA
Overload Current			3	A
DC Offset			±100	mV
Operating Temperature		-55	110	°C
Storage Temperature		-55	125	°C

CASE OUTLINE



PIN #	FUNCTION
1	+ INPUT
6	OUTPUT
8	OUTPUT
14	- INPUT

Dimensions: inches

Micropac Industries cannot assume any responsibility for any circuits shown or represent that they are free from patent infringement.
Micropac reserves the right to make changes at any time in order to improve design and to supply the best product possible.