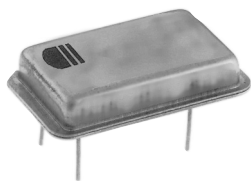


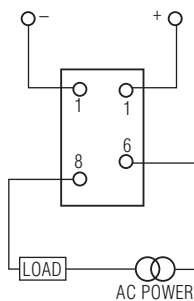
### JDS9 Series, AC Relays, 2A/250Vrms Rating



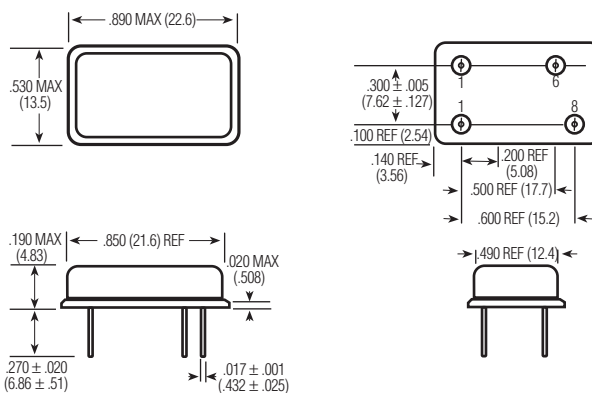
**Input Characteristics**  
**Input Voltage Range** — 3.8 – 32 Vdc  
**Pick-up Voltage** — 3.8 Vdc  
**Dropout Voltage** — 1.5 Vdc  
**I/O Dielectric** — 1500 Vrms

**Output Characteristics**  
**Max. Output Current (Continuous, 25°C)** — 2 Arms  
**Max. Output Voltage** — 250 Vrms  
**Peak Over Voltage Rating** — 500 Vpk  
**Frequency Range** — 40 – 440 Hz  
**Zero Switch Window** — 15 Vpk  
**Thermal Resistance** —  
 Junction to Ambient — 65°C/Watt  
 Junction to Case — 15°C/Watt

**Environmental Characteristics**  
**Shock** — 1500 G's, 0.5 ms.  
**Vibration** — 30 G's, 10 to 3000 Hz  
**Operating Ambient Temperature** — -55 to +110°C



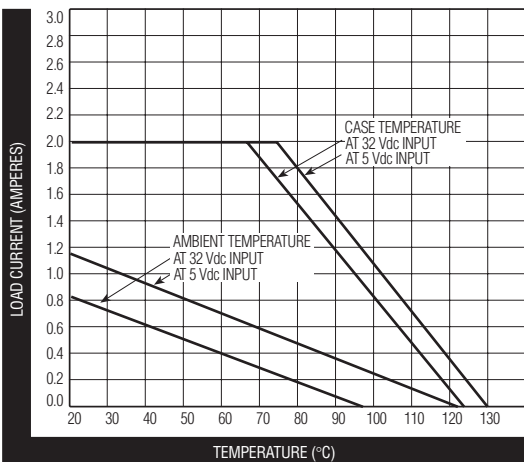
Terminal View



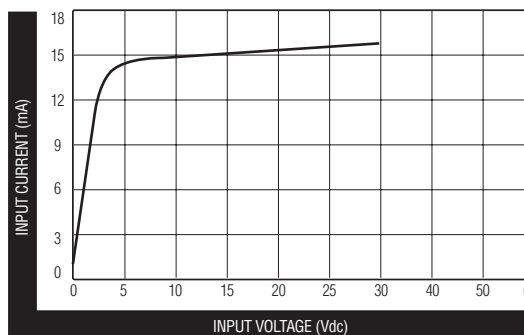
**Product Facts**

- Hermetically sealed
- Thick film hybrid construction
- Optically isolated
- Zero voltage turn-on
- Qualified to MIL-R-28750/9

Screening levels: Y level for high reliability applications. P/NJS9-1Y  
 W level for general purpose applications. P/NS9-1W



JDS9 Max. Output Current vs. Temperature



JDS9 Typical Input Current vs. Input Voltage

10  
 KILOVAC Solid State Relays

## JDS9 Series, AC Relays, 2A/250Vrms Rating (Continued)

### Electrical Specifications (-55°C to +105°C unless otherwise specified)

<b>Input</b>	
Input supply voltage range (Vcc)	3.8 - 32 Vdc
Input current (max.) @ 5Vdc	15mA <sub>dc</sub>
Must turn-on voltage	3.8V <sub>dc</sub>
Must turn-off voltage	1.5V <sub>dc</sub>
Reverse voltage protection	-32V <sub>dc</sub>
<b>I/O</b>	
Dielectric strength (min.)	1,500V rms/60 Hz.
Insulation resistance (min.) @ 500Vdc	10 <sup>9</sup> ohms
Capacitance (max.)	10pF
<b>Output</b>	
Output current rating (max.)	2A rms (Fig. 2, Note 1)
Surge current (max.), 16ms @ 25°C (max.)	8A pk (Fig. 1, Note 3)
Continuous load voltage (max.)	250V rms
Transient blocking voltage (max.)	500V pk
Frequency range	40 - 440 Hz.
Output voltage drop (max.) @ 1A load current	1.5V rms
Off-state leakage current (max.) @ 250V rms/400 Hz.	1mA rms
Turn-on time (max.)	1/2 cycle
Turn-off time (max.)	1 cycle
Off-state dv/dt (min.), with snubber	200V /μs (Note 2)
Zero voltage turn-on window (max.)	10V
Wave distortion (max.)	4V rms
Output chip junction temperature (max.)	130°C
Thermal resistance (max.), junction to ambient	65°C/W
Thermal resistance (max.), junction to case	15°C/W

### Notes

1. Operation at elevated load currents up to 2 amps is dependent on the use of suitable heatsink to maintain case temperature.
2. Recommended output snubber: R = 100 ohms (1/2 W), C = .01μF (600V).
3. Heating of output chip during and after a surge may cause loss of output blocking capability until junction temperature falls below maximum rating.