

Printed Circuit Board Solid State Relay

PCD203AC2

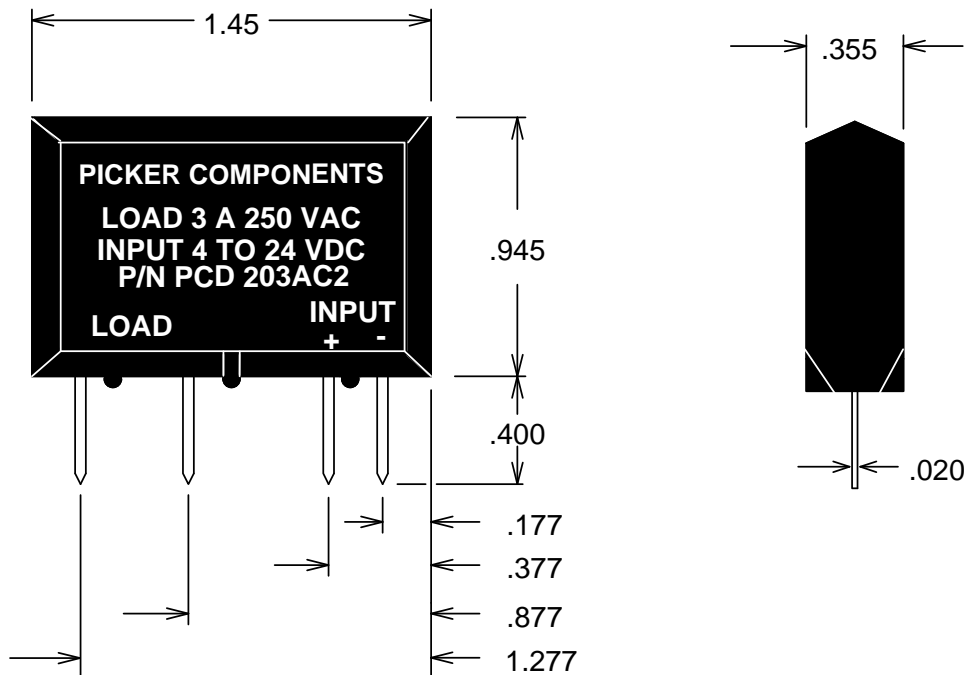


FEATURES

- Narrow profile for high density spacing
- Solid Epoxy Body Resistant to the environment
- 4,000 Volt isolation between input and output
- 4 to 24 Volt DC input
- Completely sealed, Immersion cleanable
- 3 Amp AC Output
- 50 to 250 AC Volt Output
- Zero crossing switching
- Built in snubber network
- Very high surge resistance

Dimensions in Inches

Drawing is 2 X Scale



Absolute Maximum Ratings at 25 Degrees C				
Parameter		Symbol	Rating	Unit
Input	Input signal voltage	V_{IN}	4 - 24	V DC
	Drop out voltage	V_{do}	1	V DC
Output	RMS on state current	I_T	3	A rms
	Peak one cycle surge current	I_{surge}	30	A
	Repetitive peak off state voltage	V_{DRM}	600	V
	Operating frequency	f	47 - 70	Hz
	Critical rate of rise on state current	di/dt	50	A/μS
	Load supply voltage	V_{out}	250	Vrms AC
Isolation voltage input to output		V_{iso}	4000	Vrms
Operating temperature		T_{opr}	-30 - 100	°C
Storage temperature		T_{stg}	-30 - 125	°C
Soldering temperature 10 seconds		T_{sol}	260	°C

Electrical Characteristics at 25 Degrees C				
Parameter		Symbol	Conditions	Unit
Input	Pick up voltage	V_{pu}	$I_t = 1A_{rms}$	4V DC MAX
	Input current	I_{in}	$V_{in} = 4 - 24V$	5 TO 12 mA
Output	On state voltage	V_T	$I_t = 1A_{rms}$	1.5V rms MAX
	Operating current	I_{op}	$V_{out} = 240 V_{rms}$	50 mArms MIN
	Leakage current	I_{leak}	$V_{out} = 240 V_{rms}$	7 mArms MAX
	Critical rate of rise of off state voltage	dv/dt	See Note 1	50 TO 200V/μS
	Zero cross voltage	V_{ox}	$I_{in} = 7mA$	35 VAC MAX
	Load voltage rating	V_{out}	$I_T = 50 mArms Min.$	50 TO 280VAC
Minimum trigger current		I_{FT}	$V_{DRM} = 600 V$	10 mA MAX
Isolation resistance input to circuit		R_{iso}	DC 500 V	10^{10} OHMS MIN
Turn on time		T_{on}	60 Hz AC	8.3 ms MAX
Turn off time		T_{off}	60 Hz AC	8.3 ms MAX
Thermal resistance (between junction and case)		$R_{th(j-c)}$		1.3 °C/W

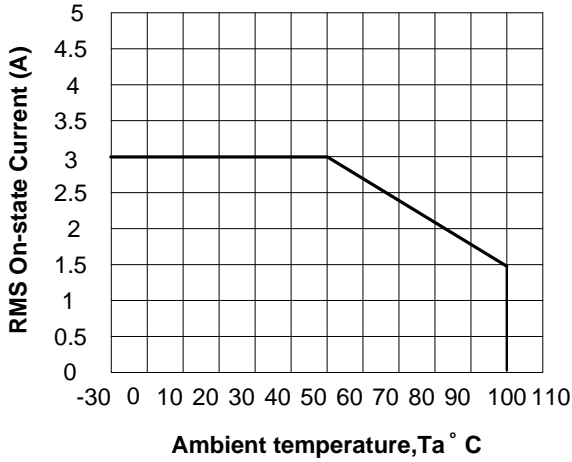
NOTES: 1. Output (dv/dt) protection is provided on all models. They are designed to switch resistive or inductive loads to 0.2 power factor. The dv/dt rating is based on a source impedance of 50 ohms.



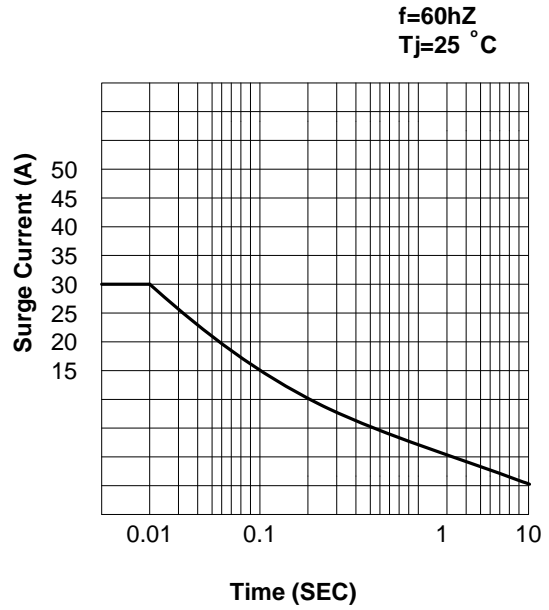
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CHARACTERISTIC CURVES

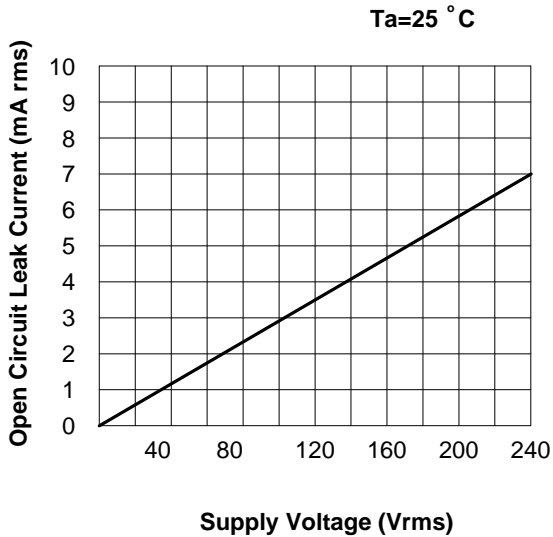
RMS On-state Current vs. Ambient Temperature



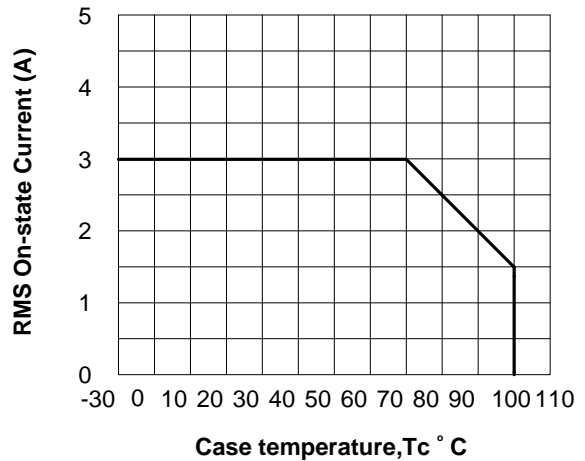
Surge Current vs. Time



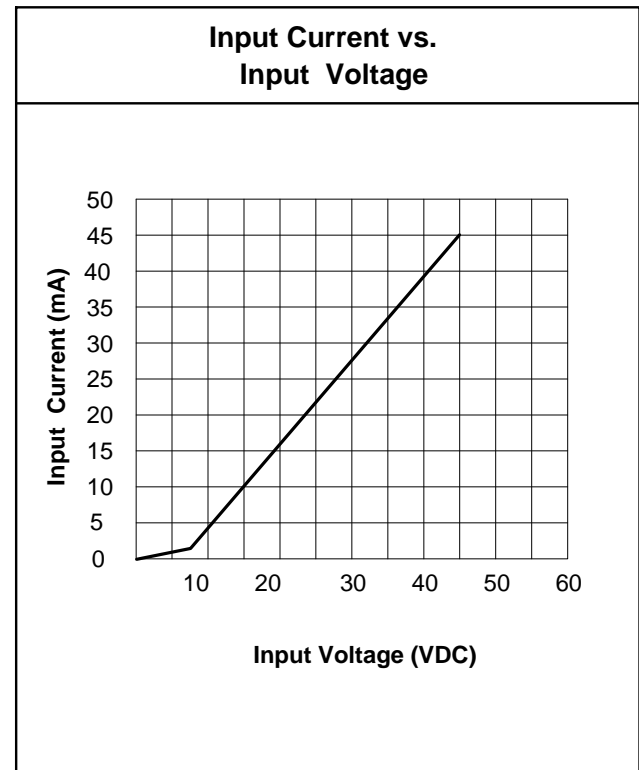
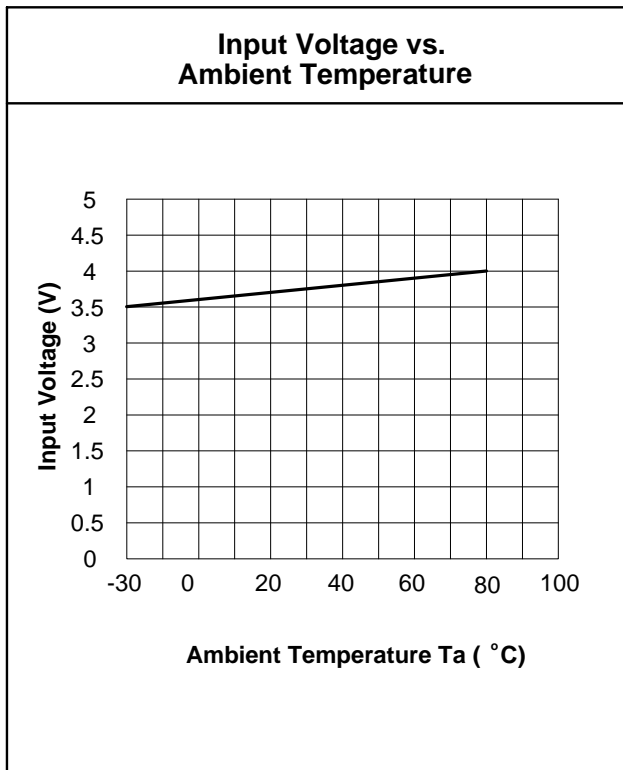
Open Circuit Leak Current vs. Supply Voltage



RMS On-state Current vs. Case Temperature



CHARACTERISTIC CURVES

**NOTES:**

3 AMP Rating is UL recognized and certified for Canada at 50 degrees C.

This SSR will carry up to 5 Amps at 30 Degrees C non UL.

Zero Crossing switching and 4,000 volt isolation make this relay CE compliant

.355 Inch thickness allows high density spacing



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