PICKER COMPONENTS

Surface Mount Solid State Relay — PCD210-440



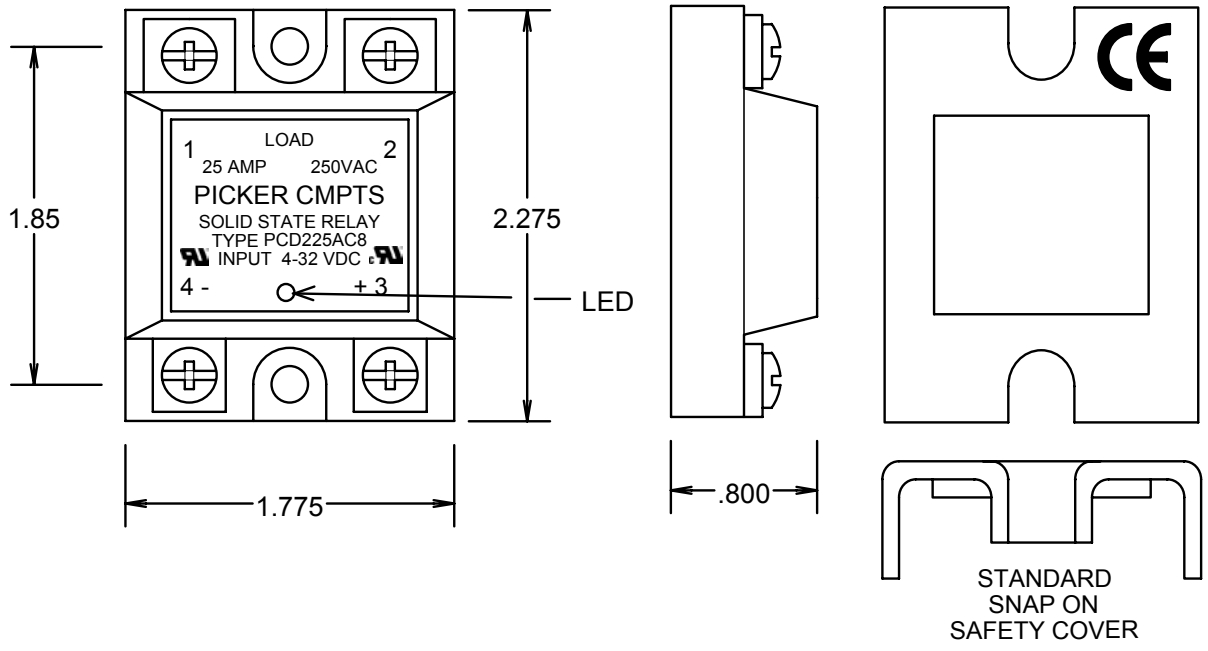
FEATURES

- Industry standard "Hockey Puck" design
- Solid Epoxy Body Resistant to the environment
- 4,000 Volt isolation between input and output
- 4 to 32 Volt DC input
- Completely sealed, Immersion cleanable
- 10 to 40 Amp Output
- 50 to 250 or 50 to 480 Volt Output
- Zero crossing switching
- Built in snubber network
- Very high surge resistance
- Has the CE mark
- UL recognized and certified for Canada

File # E86876

Certified by a NRTL

Dimensions in Inches



PICKER COMPONENTS
3220 Commander Drive, Suite 102, Carrollton, Texas 75006
Sales: (888)997-3933 Fax: (818) 342-5296 email: sales@pickercomponents.com URL: pickercomponents.com

Absolute Maximum Ratings at 25 Degrees C				
Parameter		**Symbol**	**Rating**	**Unit**
Input	Input signal voltage	**V** IN	4-32	V DC
	Drop out voltage	**V** do	1	V DC
Output	RMS on state current	**I** T	10, 15, 25, or 40	A rms
	Peak one cycle surge current	**I** surge	10x **I** T	A
	Repetitive peak off state voltage	**V** DRM	600 *See note 2	V
	Operating frequency	**f**	47 - 70	Hz
	Critical rate of rise on state current	**di/dt**	50	A/ μ S
	Load supply voltage	**V** out	250 *See Note 2	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	It=1Arms	4V DC MAX
	Input current	**I** in	Vin=4 - 32V	5 TO 12 mA
Output	On state voltage	**V** T	It=1Arms	1.5V rms MAX
	Operating current	**I** op	Vout=240 Vrms	50 mArms MIN
	Leakage current	**I** leak	Vout=240 Vrms	3.5 TO 7 mArms
	Critical rate of rise of off state voltage	**dv/dt**	See Note 1	50 TO 200V/ μ S
	Zero cross voltage	**V** ox	**I** in =7mA	35 VAC MAX
	Load voltage rating	**V** out	I_T =50mArms MIN	50 TO 280VAC
Minimum trigger current		**I** FT	V_{DRM} =600V	25 mA MAX
Isolation resistance input to circuit		**R** iso	DC 500V	10^{10} OHMS MIN
Turn on time		**T** on	60Hz AC	8.3 ms MAX
Turn off time		**T** off	60Hz AC	8.3 ms MAX
Thermal resistance (between junction and case)		Rth(j-c)I		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.

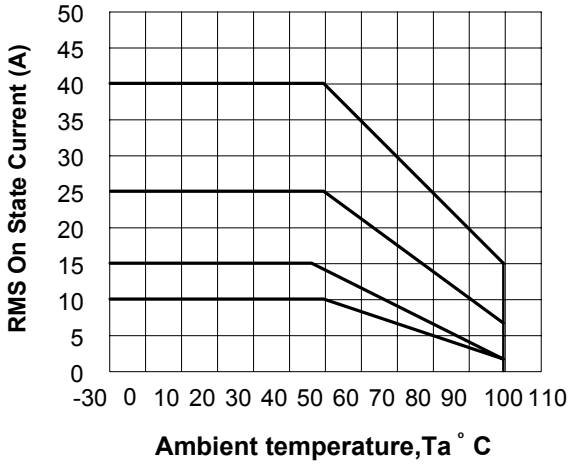
2. Model PCD425AC8-1 is rated 25 amps at 480 VAC. I surge is 250 amps and V DRM Is 1200 VOLTS. Vout Is 480 VAC.

   Model PCD440AC8-1 is rated 40 amps at 480 VAC. I surge is 400 amps and V DRM Is 1200 VOLTS. Vout Is 480 VAC.

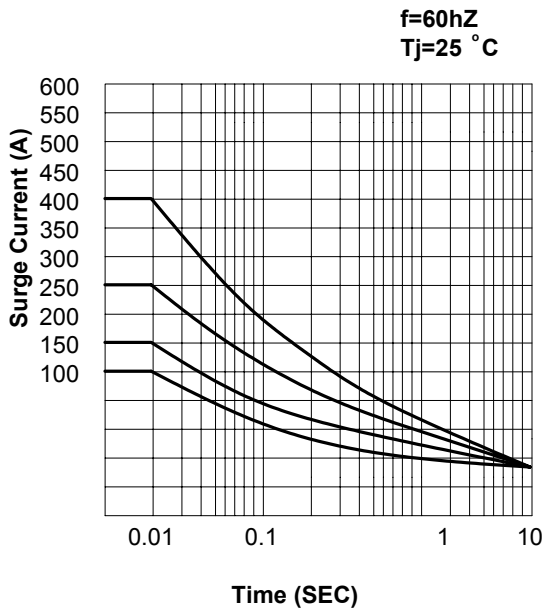
PICKER COMPONENTS
3220 Commander Drive, Suite 102, Carrollton, Texas 75006
Sales: (888)997-3933 Fax: (818) 342-5296 email: sales@pickercomponents.com URL: pickercomponents.com

CHARACTERISTIC CURVES

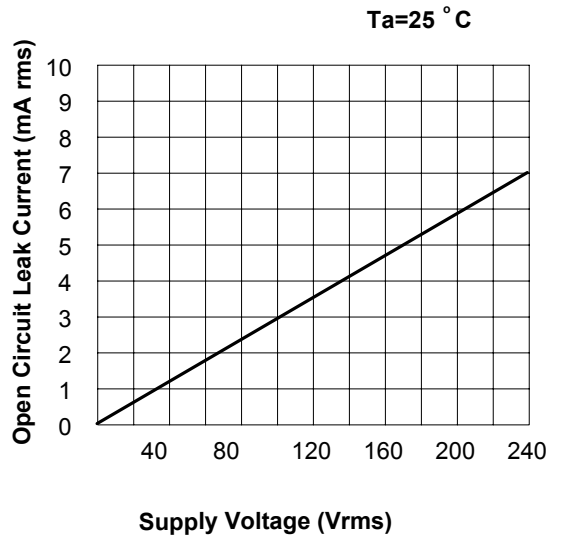
RMS On-state Current vs. Ambient Temperature



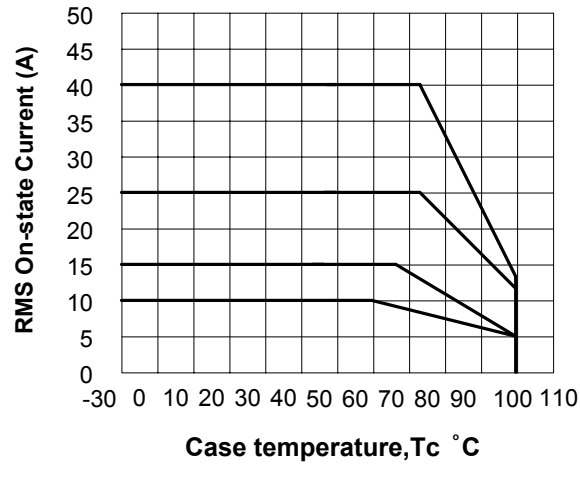
Surge Current vs. Time



Open Circuit Leak Current vs. Supply Voltage



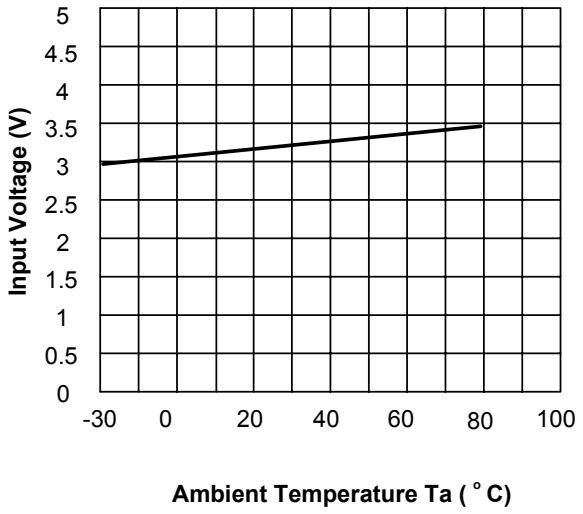
RMS On-state Current vs. Case Temperature



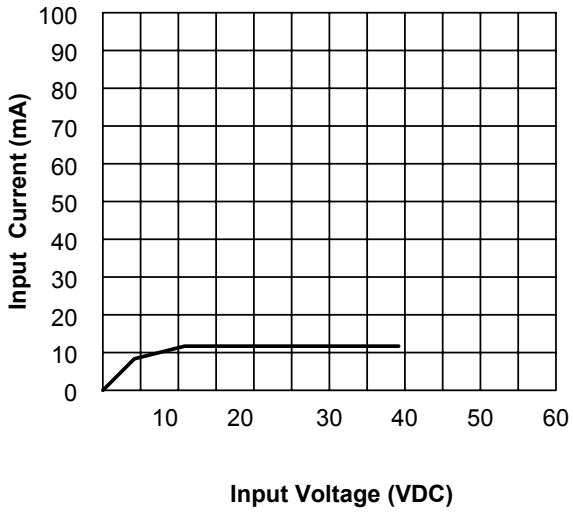
3220 Commander Drive, Suite 102, Carrollton, Texas 75006
Sales: (888)997-3933 Fax: (818) 342-5296 email: sales@pickercomponents.com URL: pickercomponents.com

CHARACTERISTIC CURVES

Input Voltage vs. Ambient Temperature



Input Current vs. Input Voltage



PART NUMBER	CURRENT RATING	AC VOLTAGE RATING
PCD210AC8	10 AMPS	250 VAC
PCD215AC8	15 AMPS	250 VAC
PCD225AC8	25 AMPS	250 VAC
PCD240AC8	40 AMPS	250 VAC
PCD425AC8	25 AMPS	480 VAC
PCD440AC8	40 AMPS	480 VAC

PICKER COMPONENTS

3220 Commander Drive, Suite 102, Carrollton, Texas 75006
Sales: (888)997-3933 Fax: (818) 342-5296 email: sales@pickercomponents.com URL: pickercomponents.com