USR/CNR Listed (File# E223387)

Features

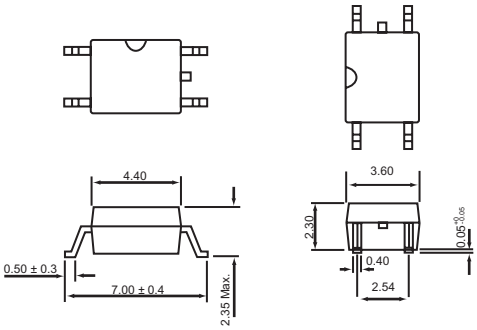
1. Opaque type, SOP package.
2. Subminiature type. Smaller than DIP type by 30%.
3. Isolation voltage between input and output (Viso: 2500Vrms).

For 115/240 VRMS Application:

1. Solenoid/Valve Controls.
2. Lighting Controls.
3. Static Power Switches.
4. AC Motor Drives.
5. Temperature Controls.
6. E.M. Contactors.
7. AC Motor Starters.
8. Solid State Relays.
9. Available package types: SOP(shown).

Part Numbering System: Page 2. **Part Marking System:** Page 4.

Outside Dimension: Unit (mm)



TOLERANCE: ±0.2mm

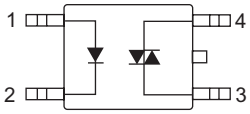
Trigger LED Current

Example Part Number

WPPCT - N 10 4 4 S TRU

Options	Trigger Current(mA)
10 (Standard)	10 max.
7	7 max.
5	5 max.

Schematic: Top View



1. Anode
2. Cathode
3. Main Terminal
4. Main Terminal

Absolute Maximum Ratings

(Ta = 25°C)

Parameter		Symbol	Rating	Unit
Input	Forward Current	I_F	50	mA
	Peak Forward Current (100us)	I_{FM}	1	A
	Reverse Voltage	V_R	6	V
	Power Dissipation	P_D	70	mW
Output	Off-State Output Terminal Voltage	V_{DRM}	600	Vpeak
	On-State R.M.S. Current	$I_{T(RMS)}$	70	mA
	Peak Repeitive Surget Current (PW=10ms, DC 10%)	I_{TSM}	1	A
	Power Dissipation	P_D	150	mW
Total Power Dissipation		Ptot	200	mW
Isolation Voltage 1 minute		Viso	2500	Vrms
Operating Temperature		Topr	-40 to +100	°C
Storage Temperature		Tstg	-50 to +125	°C
Solder Temperature 10 seconds		Tsol	260	°C

Electro-optical Characteristics

(Ta = 25°C)

Parameter		Symbol	Conditions	Min.	Typ.	Max.	Unit
Input	Forward Voltage	V_F	I_F = 10mA	-	1.2	1.4	V
	Peak Forward Voltage	V_{FM}	I_{FM} = 0.5A	-	-	3.5	V
	Reverse Leakage Current	I_R	V_R = 5V	-	-	10	uA
Output	Peak Blocking Current	I_{DRM}	V_{DRM} = 600V	-	-	1.0	uA
	On-State Voltage	V_{TM}	I_{TM} = 70mA	-	1.6	2.8	V
Transfer Characteristics	Holding Current	I_H		-	1.0	-	mA
	Critical Rate of Rise of Off-State Voltage	dV/dt	$V_{DRM} = (1/\sqrt{2}) * \text{Rated}$	100	-	-	V/us
	Isolation resistance	Riso	DC500V	5×10^{10}	10^{11}	-	ohm
	Minimum Trigger LED Current (Standard, see above table for more options)	I_{FT}	Main Terminal Voltage = 3V	-	5	10	mA
	Turn-On Time	T_{ON}	$V_= = 6V$, $R_L = 100\Omega$, $I_F = 20mA$	-	-	100	uS

USR/CNR Listed (File# E223387)

Data Curves

Fig. 1 Forward Current vs. Ambient Temperature

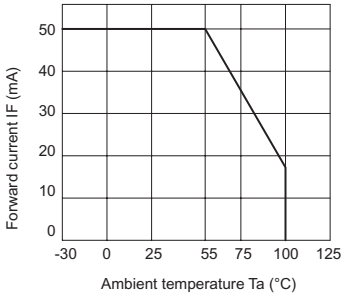


Fig. 2 Diode Power Dissipation vs. Ambient Temperature

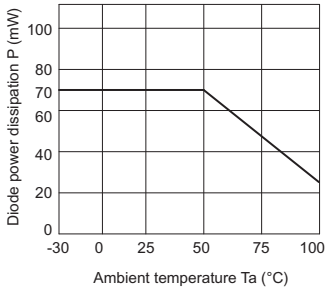


Fig. 3 On-State R.M.S. Current vs. Ambient Temperature

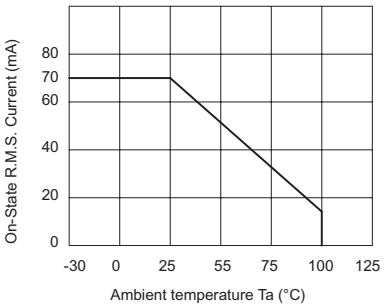


Fig. 4 Total Power Dissipation vs. Ambient Temperature

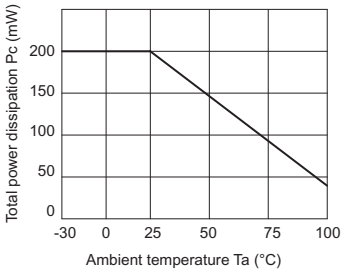


Fig. 5 Peak Forward Current vs. Duty Ratio

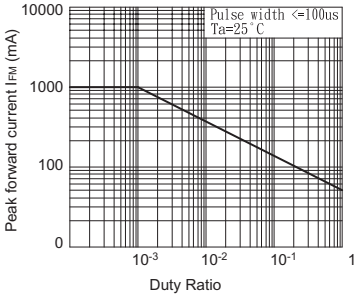


Fig. 6 Forward Current vs. Forward Voltage

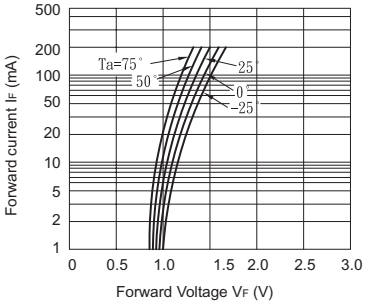


Fig. 7 On-State Characteristics

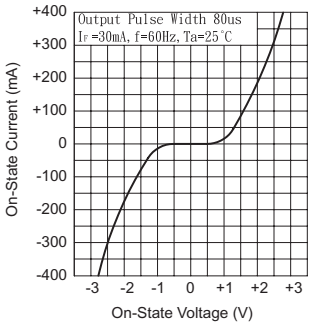


Fig. 8 Leakage with LED off vs. Ambient Temperature

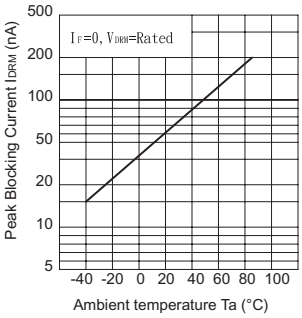


Fig. 9 Trigger Current vs. Ambient Temperature