

PC3SD11YTZDF

Phototriac Coupler

Low Input Drive Type Phototriac Coupler

Features

- (1) Low input drive
(Minimum trigger current : MAX. 3 mA)
- (2) High repetitive peak OFF-state voltage (V_{DRM} : 600 V)
- (3) High isolation voltage (Viso(rms) : 5 000V)
- (4) Recognized by UL1577(double protection isolation)
Approved by CSA
Approved by VDE(DIN EN60747-5-2)
{as model No. "3SD11"}
- (6) Lead-free components (adaptable to RoHS directive)

Applications

- (1) OA equipment
- (2) FA power supply
- (3) Vending machine
- (4) SSRs

Absolute Maximum Ratings

(Ta=25 °C)

Parameter		Symbol	Ratings	Unit
Input	Forward current	I_F	50	mA
	Reverse voltage	V_R	6	V
Output	RMS ON-state current	$I_T(\text{rms})$	100	mA
	*1 Peak one cycle surge current	I_{surge}	1.2	A
	Repetitive peak OFF-state voltage	V_{DRM}	600	V
	*2 Isolation voltage	$V_{\text{iso}}(\text{rms})$	5.0	kV
Operating temperature		T_{opr}	-30 to +100	°C
Storage temperature		T_{stg}	-55 to +125	°C
*3 Soldering temperature		T_{sol}	260	°C

*1 50Hz sine wave

*2 AC for 1 minute,
RH=40 to 60%, f=60Hz

*3 For 10s

Electro-optical Characteristics

(Ta=25 °C)

Parameter		Symbol	Conditions	MIN.	TYP.	MAX.	Unit
Input	Forward voltage	V_F	$I_F=20 \text{ mA}$	—	1.2	1.4	V
	Reverse current	I_R	$V_R=3 \text{ V}$	—	—	10^{-5}	A
Output	Repetitive peak OFF-state current	I_{DRM}	$V_D=V_{DRM}$	—	—	10^{-6}	A
	ON-state voltage	V_T	$I_T=0.1 \text{ A}$	—	—	2.5	V
	Holding current	I_H	$V_D=6 \text{ V}$	0.1	—	3.5	mA
	Critical rate of rise of OFF-state voltage	dV/dt	$V_D=1/\sqrt{2} \cdot V_{DRM}$	1 000	—	—	V/ μs
Transfer characteristics	Minimum trigger current	I_{FT}	$V_D=6 \text{ V}, R_L=100 \Omega$	—	—	3	mA
	Isolation resistance	R_{ISO}	DC=500 V, 40 to 60 %RH	5×10^{10}	10^{11}	—	Ω
	Turn-on time	t_{on}	$V_D=6 \text{ V}, R_L=100 \Omega, I_F=10 \text{ mA}$	—	—	100	μs

As of April 2004

(Notice)

- In the absence of confirmation by device specification sheets, SHARP takes no responsibility for any defects that may occur in equipment using any SHARP devices shown in catalogs, data books, etc. Contact SHARP in order to obtain the latest device specification sheets before using any SHARP device.
- Specifications are subject to change without notice for improvement.

(Internet)

- Data for Sharp's optoelectronic/power devices is provided on internet. (Address <http://sharp-world.com/products/device/>)

Outline Dimensions

(Unit:mm)

