

PC3SD11YTZDF

Phototriac Coupler

Low Input Drive Type Phototriac Coupler

Features

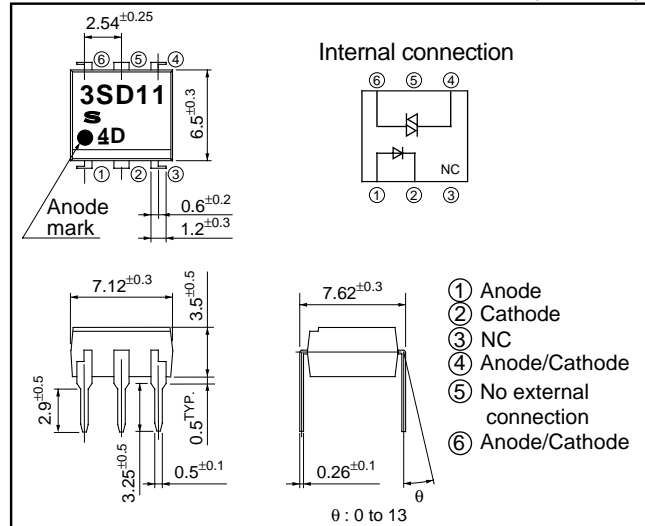
- Low input drive
(Minimum trigger current : MAX. 3 mA)
- High repetitive peak OFF-state voltage (V_{DRM} : 600 V)
- High isolation voltage (Viso(rms) : 5 000V)
- Recognized by UL1577(double protection isolation)
Approved by CSA
Approved by VDE(DIN EN60747-5-2)
{as model No. "3SD11"}
- Lead-free components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

Applications

- OA equipment
- FA power supply
- Vending machine
- SSRs

Outline Dimensions

(Unit:mm)



Absolute Maximum Ratings

($T_a=25\text{ }^\circ\text{C}$)

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	$^\circ\text{C}$
Storage temperature		T_{stg}	-55 to +125	$^\circ\text{C}$
*3 Soldering temperature		T_{sol}	260	$^\circ\text{C}$

- *1 50Hz sine wave
*2 AC for 1 minute,
RH=40 to 60%, f=60Hz
*3 For 10s

Electro-optical Characteristics

($T_a=25\text{ }^\circ\text{C}$)

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)

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(Internet)

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