

# PC3SH11YFZA

## ■ Features

1. Isolation voltage between input and output ( $V_{iso(rms)}$ :5kV)
2. High critical rate of rise of OFF-state voltage  
(dV/dt:MIN. 1 000V/ $\mu$ s)
3. Internal isolation distance (0.4mm or more)
4. Recognized by UL, file No.E64380 (model No.3SH11)  
Approved by CSA, file No.CA95323 (model No.3SH11)  
Under preparation for VDE, BSI, SEMKÖ, DEMKÖ and FIMKÖ

## ■ Applications

1. Home appliances
2. OA equipment, FA equipment
3. SSRs

## ■ Absolute Maximum Ratings ( $T_a=25^\circ\text{C}$ )

	Parameter	Symbol	Rating	Unit
Input	*1 Forward current	$I_F$	50	mA
	Reverse voltage	$V_R$	6	V
Output	*1 RMS ON-state current	$I_T(rms)$	0.1	A
	Peak one cycle surge current	$I_{surge}$	1.2 (50Hz sine wave)	A
	Repetitive peak OFF-state voltage	$V_{DRM}$	600	V
*2	Isolation voltage	$V_{iso(rms)}$	5	kV
	Operating temperature	$T_{opr}$	-30 to +100	$^\circ\text{C}$
	Storage temperature	$T_{stg}$	-55 to +125	$^\circ\text{C}$
	Soldering temperature	$T_{sol}$	260 (For 10s)	$^\circ\text{C}$

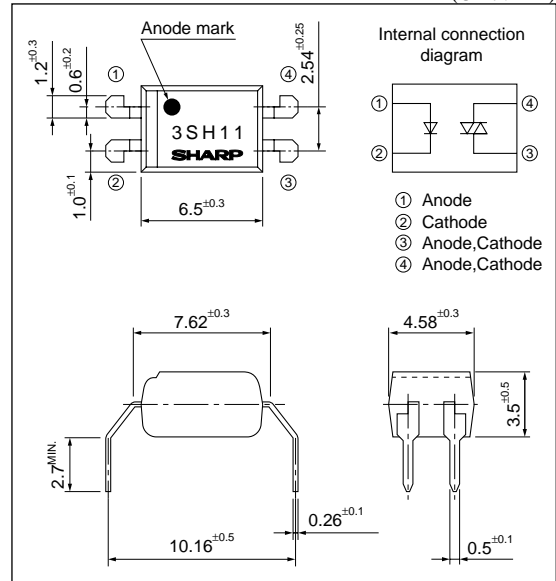
\*1 The derating factors of absolute maximum ratings due to ambient temperature are shown in Fig. 1, 2

\*2 40 to 60%RH, AC for 1minute,  $f=60\text{Hz}$

## Reinforced Insulation Type Compact Phototriac Coupler for Triggering

## ■ Outline Dimensions

(Unit : mm)



■ Electro-optical Characteristics

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

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	$I_{\text{DRM}}$	$V_D=V_{\text{DRM}}$	–	–	$10^{-6}$	A
	ON-state voltage	$V_T$	$I_T=0.1\text{A}$	–	–	3.0	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	$V_D=1/\sqrt{2} \cdot V_{\text{DRM}}$	1 000	2 000	–	V/ $\mu\text{s}$
Transfer characteristics	Minimum trigger current	$I_{\text{FT}}$	$V_D=6\text{V}, R_L=100\Omega$	–	–	10	mA
	Isolation resistance	$R_{\text{ISO}}$	DC=500V, 40 to 60%RH	$5 \times 10^{10}$	$10^{11}$	–	$\Omega$
	Turn-on time	$t_{\text{on}}$	$V_D=6\text{V}, R_L=100\Omega, I_F=20\text{mA}$	–	–	100	$\mu\text{s}$

Fig.1 RMS ON-state Current vs. Ambient Temperature

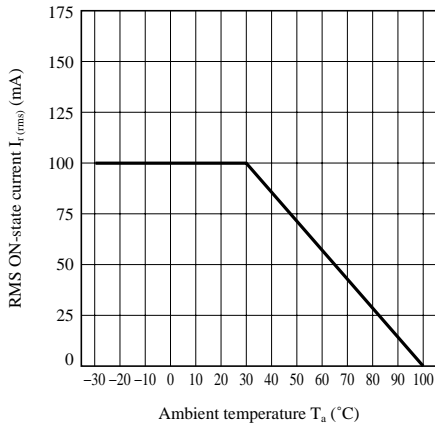
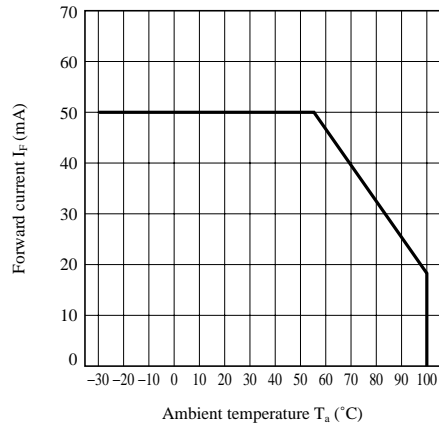


Fig.2 Forward Current vs. Ambient Temperature



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