

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/ μ 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) | $^{\circ}\text{C}$ |

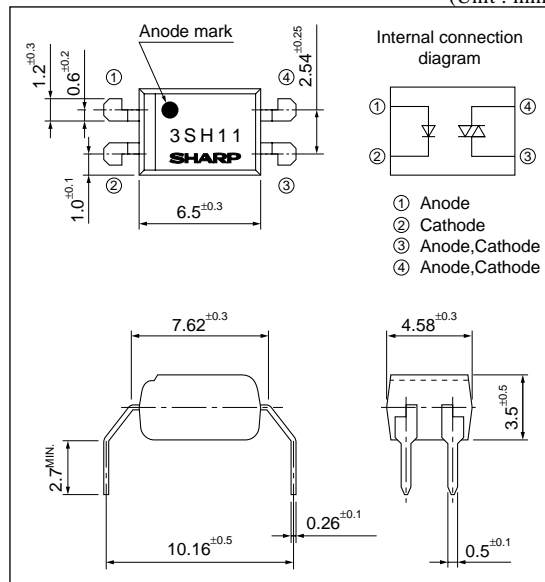
*1 The derating factors of absolute maximum ratings due to ambient temperature are shown in Fig.1, 2

*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°C)

| Parameter | | Symbol | Conditions | MIN. | TYP. | MAX. | Unit |
|--------------------------|--|------------------|--|--------------------|------------------|------------------|------|
| Input | Forward voltage | V _F | I _F =20mA | — | 1.2 | 1.4 | V |
| | Reverse current | I _R | V _R =3V | — | — | 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 =0.1A | — | — | 3.0 | V |
| | Holding current | I _H | V _D =6V | 0.1 | — | 3.5 | mA |
| | Critical rate of rise of OFF-state voltage | dV/dt | V _D =1/√2 • V _{DRM} | 1 000 | 2 000 | — | V/μs |
| Transfer characteristics | Minimum trigger current | I _{FT} | V _D =6V, R _L =100Ω | — | — | 10 | mA |
| | Isolation resistance | R _{ISO} | DC=500V, 40 to 60%RH | 5×10 ¹⁰ | 10 ¹¹ | — | Ω |
| | Turn-on time | t _{on} | V _D =6V, R _L =100Ω, I _F =20mA | — | — | 100 | μs |

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

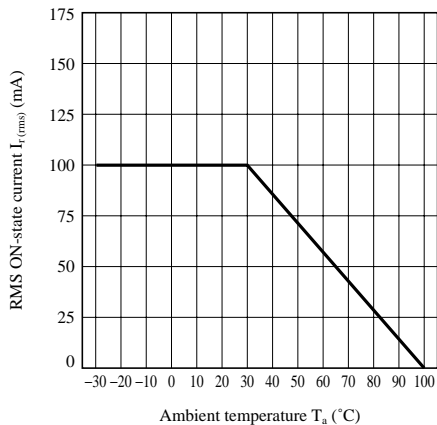
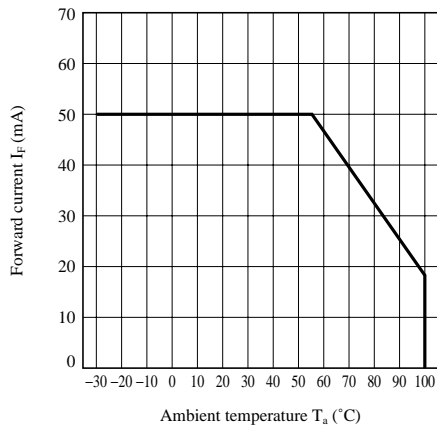


Fig.2 Forward Current vs. Ambient Temperature



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