# **S2S5**

### **■** Features

- 1. Surface Mount type
- 2. Isolation voltage between input and output (Viso (rms): 3.75kV)
- 3. Mini-flat package

# ■ Applications

- 1. Home appliances
- 2. Office automation (OA) equipment, factory automation (FA) equipment
- 3. SSRs

## ■ Absolute Maximum Ratings

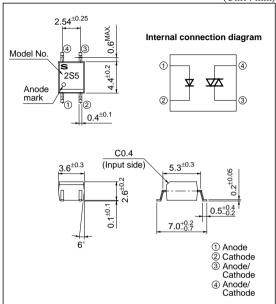
Parameter		Symbol	Rating	Unit	
Input	Forward current	$I_F$	50	mA	
	Reverse voltage	$V_R$	6	V	
Output	*1RMS ON-state current	I <sub>T(rms)</sub>	0.05	A	
	Peak one cycle surge current	Isurge	0.6 (50Hz sine wave)	A	
	Repetitive peak OFF-state voltage	V <sub>DRM</sub>	600	V	
*2 Isolation voltage		V <sub>iso(rms)</sub>	3.75	kV	
Operating temperature		Topr	-30 to +100	°C	
Storage temperature		Tstg	-40 to +125	°C	
Soldering temperature		Tsol	260 (For 10s)	°C	

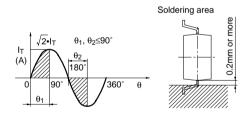
<sup>\*1</sup> The definition of conduction angle  $\theta$  of effective. ON current It should be as shown in the right drawing.

# Phototriac Coupler for Triggering

### **■** Outline Dimensions

(Unit: mm)





<sup>\*2 40</sup> to 60% RH, AC for 1min, f=60Hz

### **■** Electrical Characteristics

(Ta=25°C)

	Parameter	Symbol	Conditions	MIN.	TYP.	MAX.	Unit
Input -	Forward voltage	VF	I <sub>F</sub> =20mA	-	1.2	1.4	V
	Reverse current	IR	$V_R=3V$	_	_	10	μΑ
Output	Repetitive peak OFF-state current	Idrm	$V_D = V_{DRM}$	_	_	1	μΑ
	On-state voltage	VT	It=0.05A	_	_	2.5	V
	Holding current	Iн	V <sub>D</sub> =6V	0.1	_	3.5	mA
	Critical rate of rise of OFF-state voltage	dV/dt	$V_D=1\sqrt{2}\cdot V_{DRM}$	500	-	-	V/µs
Transfer characteristics	Minimum trigger current	Ift	$V_D=6V$ , $R_L=100\Omega$	_	_	10	mA
	Isolation resistance	Riso	DC500V, 40 to 60%RH	5×10 <sup>10</sup>	1011	-	Ω
	Turn-on time	ton	$V_D=6V, R_L=100\Omega, I_F=20_mA$	_	_	100	μs

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

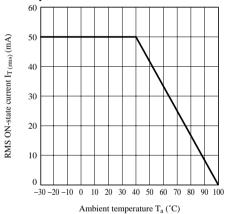


Fig.3 Forward Current vs. Forward Voltage

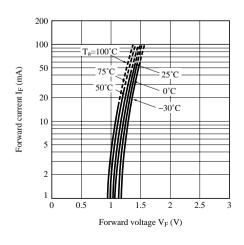


Fig.2 Forward Current vs. Ambient Temperature

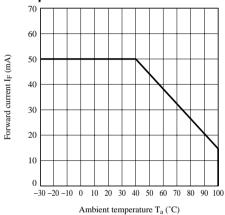


Fig.4 Minimum Trigger Current vs. Ambient Temperature

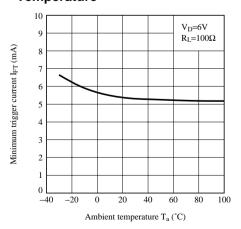


Fig.5 ON-state Voltage vs. Ambient Temperature

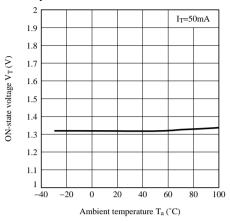


Fig.7 Repetitive Peak OFF-state Current vs. Ambient Temperature

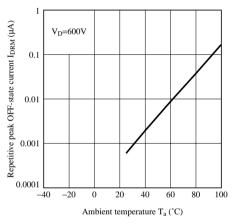


Fig.9 Turn-on Time vs. Forward Current

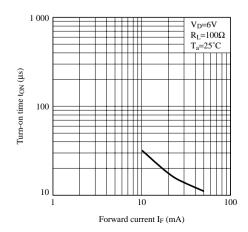


Fig.6 Holding Current vs. Ambient Temperature

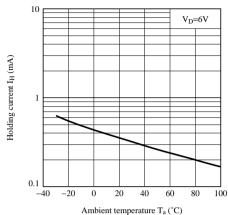
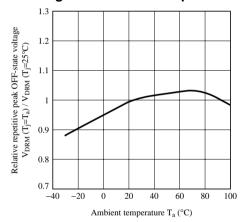


Fig.8 Relative Repetitive Peak OFF-state Voltage vs. Ambient Temperature



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