S101DH1/S101DH2 S201DH1/S201DH2

16-Pin DIP Type SSR for Low Power Control

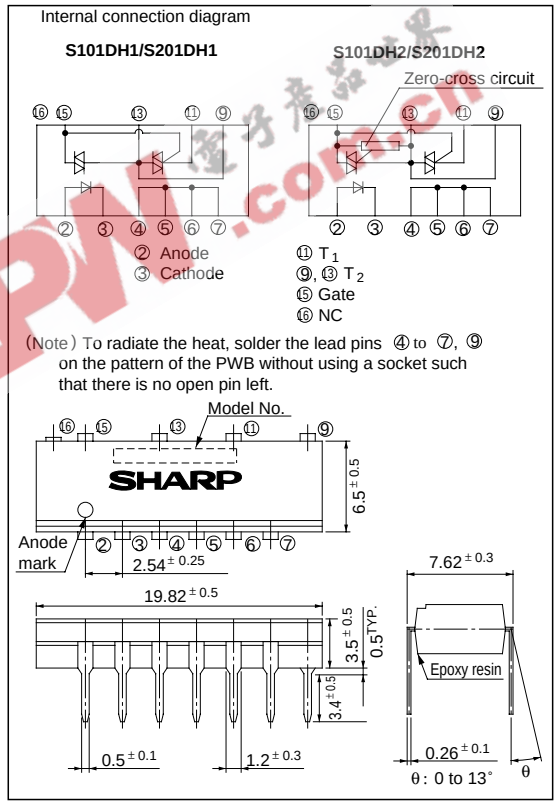
■ Features

1. Compact
   (16-pin dual-in-line package type)
2. High output current
   (RMS ON-state current I_T: 1.5A$_{rms}$)
3. Built-in zero-cross circuit
   (S101DH2 / S201DH2)
4. Recognised by UL, file No. E94758
5. Approved by CSA, No. LR63705

■ Applications

1. Air conditioners
2. Microwave ovens
3. Home appliances

■ Outline Dimensions (Unit: mm)



■ Model Line-ups

	For 100V lines	For 200V lines
No built-in zero-cross circuit	**S101DH1**	**S201DH1**
Built-in zero-cross circuit	**S101DH2**	**S201DH2**

■ Absolute Maximum Ratings (Ta = 25°C)

Parameter		Symbol	Rating		Unit
			S101DH1/ S101DH2	S201DH1/ S201DH2	
Input	Forward current	I_F	50		mA
	Reverse current	V_R	6		V
Output	RMS ON-state current	I_T	1.5		A$_{rms}$
	Peak one cycle surge current	I_{surge}	15 (50Hz, sine wave)		A
	Repetitive peak OFF-state voltage	V_{DRM}	400	600	V
*1Isolation voltage		V_{iso}	4,000		V_{rms}
Operating temperature		T_{opr}	- 25 to + 85		°C
Storage temperature		T_{stg}	- 40 to + 125		°C
Soldering temperature		T_{sol}	260 (For 10 seconds)		°C

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

■ Electrical Characteristics

(Ta = 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	μA
Output	Repetitive peak OFF-state current		I_{DRM}	V_{DRM} = Rated	-	-	100	μA
	ON-state voltage		V_T	I_T = 1.5A	-	-	1.7	V
	Holding current		I_H	V_D = 6V	-	-	25	mA
	Critical rate of rise of OFF-state voltage	S101DH1/S101DH2	dV/dt	V_{DRM} = 1/ $\sqrt{2}$ • Rated	200	-	-	V/μs
		S201DH1/S201DH2			100	-	-	
	Zero-cross voltage	S101DH2/S201DH2	V_{OX}	Resistance load, I_F = 15mA	-	-	35	V
Transfer characteristics	Minimum trigger current		I_{FT}	V_D = 6V, R_L = 100Ω	-	-	10	mA
	Isolation resistance		R_{ISO}	DC500V, 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

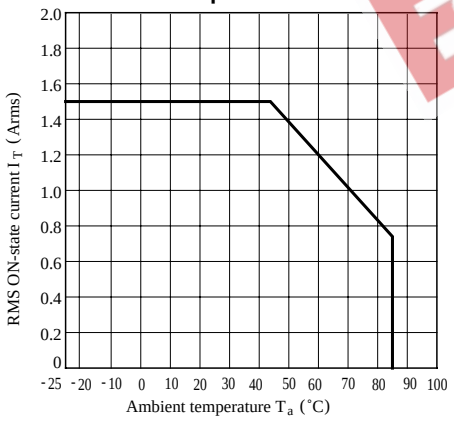


Fig. 2 Forward Current vs. Ambient Temperature

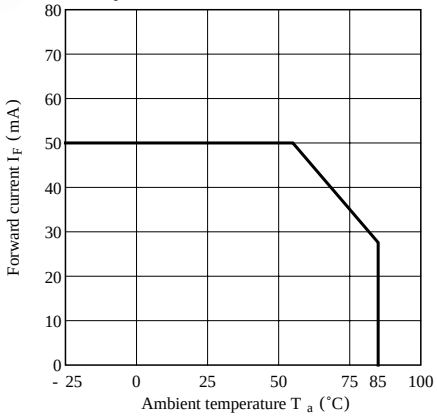


Fig. 3 Forward Current vs. Forward Voltage

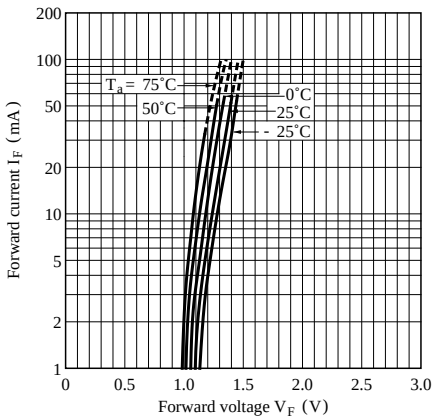


Fig. 4 Minimum Trigger Current vs. Ambient Temperature (Typical Value) (S101DH1)

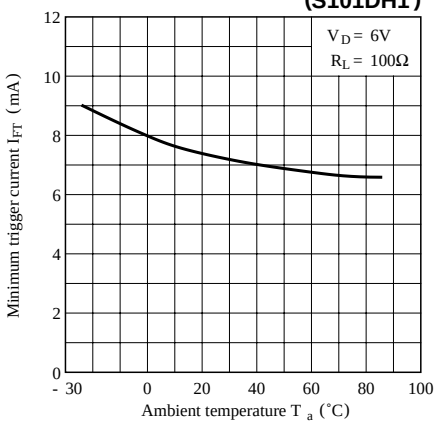


Fig. 5-a Minimum Trigger Current vs. Ambient Temperature (Typical Value)(S101DH2, S201DH2)

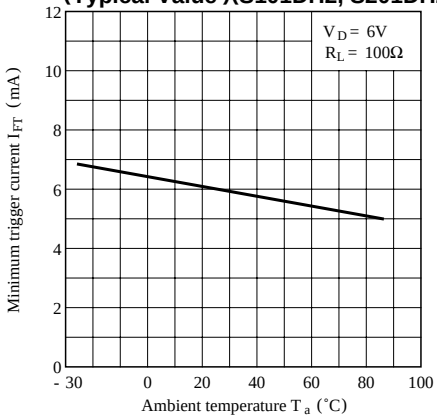


Fig. 5-b Minimum Trigger Current vs. Ambient Temperature (Typical Value) (S201DH1)

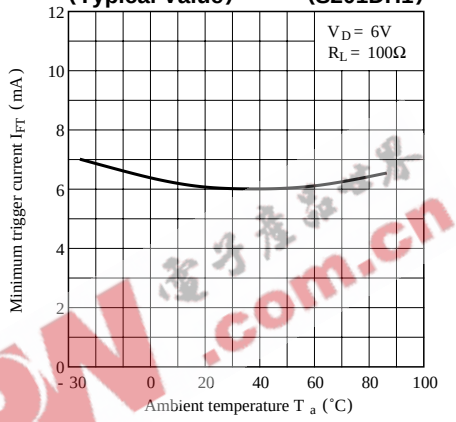


Fig. 6 ON-state Voltage vs. Ambient Temperature (Typical Value)

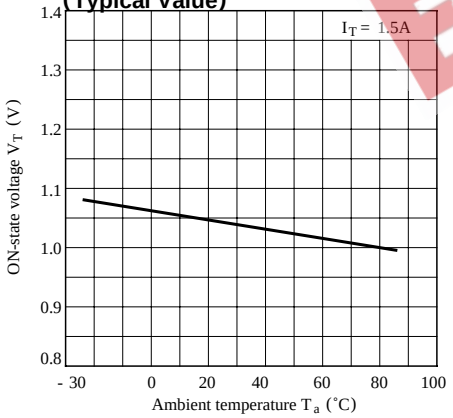


Fig. 7 Relative Holding Current vs. Ambient Temperature (Typical Value)

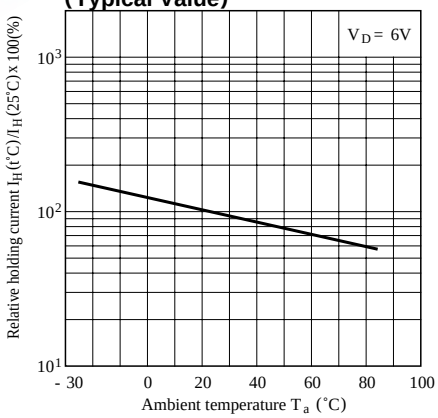


Fig. 8 ON-state Current vs. ON-State Voltage (Typical Value)

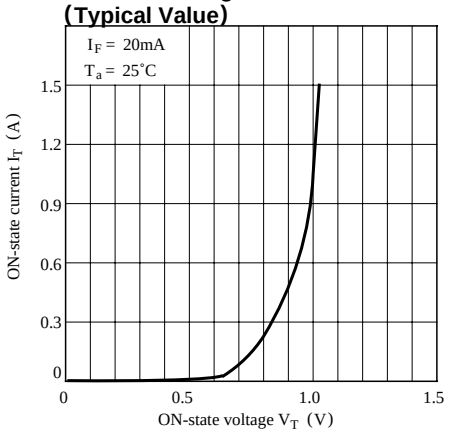


Fig. 9 Turn-on Time vs. Forward Current (Typical Value) (S101DH1)

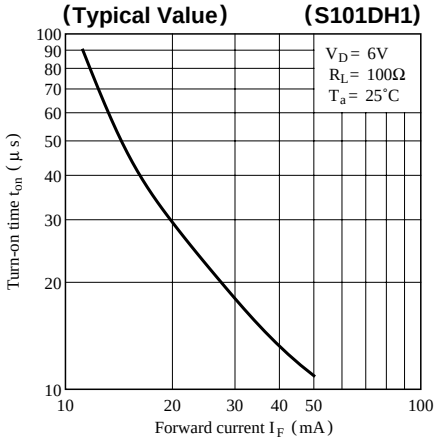


Fig.10 Turn-on Time vs. Forward Current (Typical Value) (S101DH2, S201DH2)

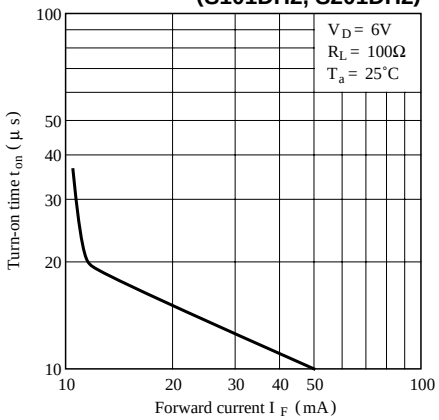
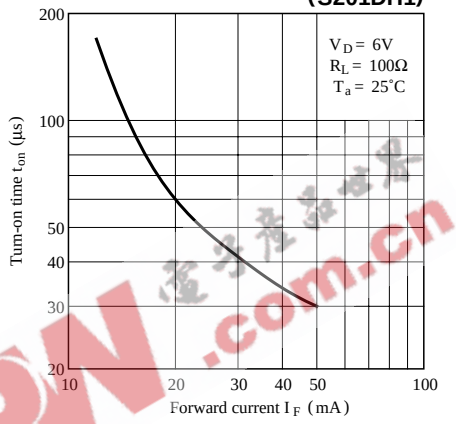


Fig.11 Turn-on Time vs. Forward Current (Typical Value) (S201DH1)



● Please refer to the chapter " Precautions for Use."