

S21MT1/S21MT2

Compact 4-pin DIP Type Phototriac Coupler

■ Features

1. Compact 4-pin DIP type
(Package area : 2/3 of conventional model)
2. Popular type
3. Recognized by UL (No. E64380)

■ Model Line-ups

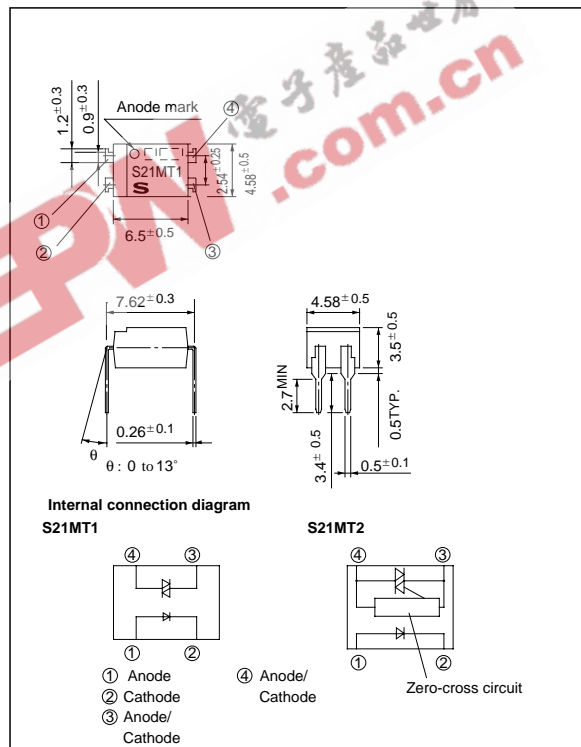
	For 200V line
Zero-cross circuit not built in	S21MT1
Zero-cross circuit built in	S21MT2

■ Application

1. For SSR

■ Outline Dimensions

(Unit : mm)



■ Absolute Maximum Ratings

(Ta=25°C)

Parameter		Symbol	Rating	Unit
Input	Forward current	I_F	50	mA
	Reverse voltage	V_R	6	V
Output	*1 RMS ON-state current	I_T	0.1	A_{rms}
	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}	5 000	V_{rms}
Operating temperature		T_{opr}	-30 to +100	°C
Storage temperature		T_{stg}	-55 to +125	°C
*3 Soldering temperature		T_{sol}	260 (for 10 sec)	°C

*1 Decrease in the ambient temperature range of the Absolute Max. Rating : Shown in Figs. 1 and 2.

*2 40 to 60% RH, AC for 1 minute

*3 For 10 seconds

■ Electro-optical Characteristics

(Ta=25°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	μA	
Output	Repetitive peak OFF-state current	I_{DRM}	$V_{DRM} = \text{Rated}$	-	-	1	μA	
	ON-state voltage	V_T	$I_T = 0.05\text{A}$	-	-	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	$V_{DRM} = (1/\sqrt{2}) \cdot \text{Rated}$	100	-	-	V/ μs	
	Zero-cross voltage	S21MT2 V_{OX}	$I_F = 15\text{mA}$, Resistance load	-	-	35	V	
Transfer characteristics	Minimum trigger current	I_{FT}	$R_L = 100\Omega$, $V_D = 6\text{V}$	-	-	10	mA	
	Insulation resistance	R_{ISO}	DC = 500V, 40 to 60% RH	5×10^{10}	1×10^{11}	-	Ω	
	Turn-on time	S21MT1	t_{on}	$V_D = 6\text{V}$, $R_L = 100\Omega$, $I_F = 20\text{mA}$	-	-	100	μs
		S21MT2			-	-	50	

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

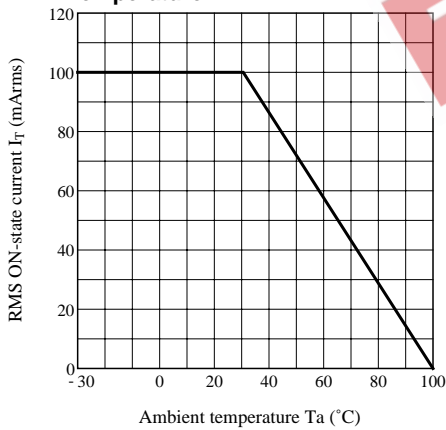
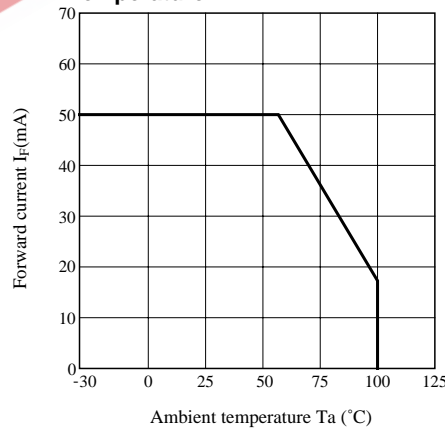


Fig. 2 Forward Current vs. Ambient Temperature



● Please refer to the chapter "Precautions for Use." (Page 78 to 93)