查询S21MD6T供应商

S21MD6T

Built-in Zero-cross Circuit Phototriac Coupler

❋ TÜV（DIN-VDE0884）approved type is also available as an option.

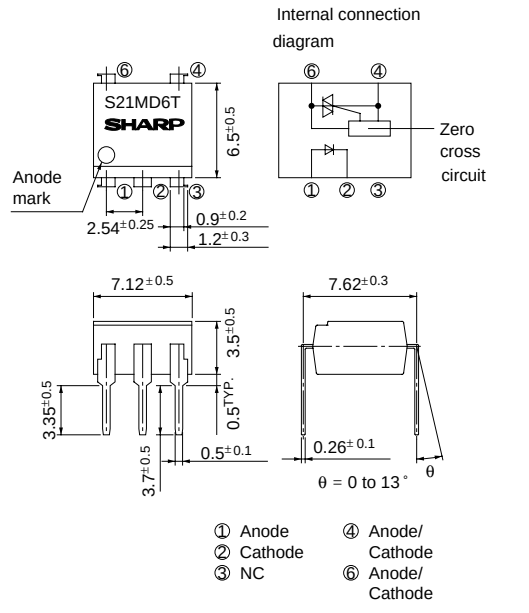
■ Features

1. Built-in zero-cross circuit（200V）
2. No. 5 pin completely molded for external noise resistance
3. Long dielectric distance between AC lines（3.9mm）
4. Recognized by UL, file No.E64380

■ Applications

1. For triggering medium/high power triac

■ 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	RMS ON-state current	I_T	0.1	A_{rms}
	*1 Peak one cycle surge current	I_{surge}	1.2	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	˚C

*1 50Hz, sine wave
*2 RH= 40 to 60%, AC for 1 minute, f = 60Hz
*3 For 10 seconds

" In the absence of confirmation by device specification sheets, SHARP takes no responsibility for any defects that occur in equipment using any of SHARP's devices, shown in catalogs, data books, etc. Contact SHARP in order to obtain the latest version of the device specification sheets before using any SHARP's device."

■ Electro-optical 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^{-5}	A
Output	Repetitive peak OFF-state current	I_{DRM}	V_{DRM} = Rated	-	-	10^{-6}	A
	ON-state voltage	V_T	I_T = 0.1A	-	2.0	3.0	V
	Holding current	I_H	V_D = 6V	0.1	0.5	3.5	mA
	Critical rate of rise of OFF-state voltage	dV/dt	$V_{DRM} = 1/\sqrt{2}$ • Rated	100	-	-	V/µs
	Zero-cross voltage	V_{OX}	Resistance load , I_F = 15mA	-	-	35	V
Transfer-charac-teristics	Minimum trigger current	I_{FT}	V_D = 6V, R_L = 100Ω	-	-	10	mA
	Isolation resistance	R_{ISO}	DC500V, 40 to 60% RH	5 x 10^{10}	10^{11}	-	Ω
	Turn-on time	t_{on}	V_D = 6V, R_L = 100Ω , I_F = 20mA	-	-	50	µs

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

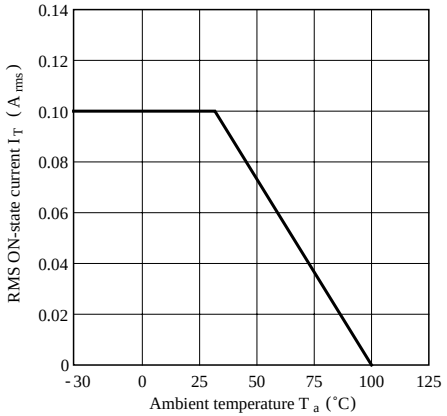


Fig. 2 Forward Current vs. Ambient Temperature

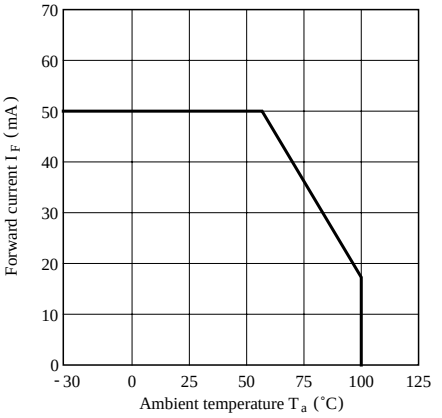


Fig. 3 Forward Current vs. Forward Voltage

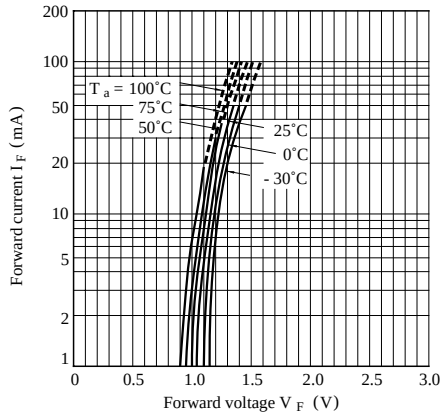


Fig. 4 Minimum Trigger Current vs. Ambient Temperature

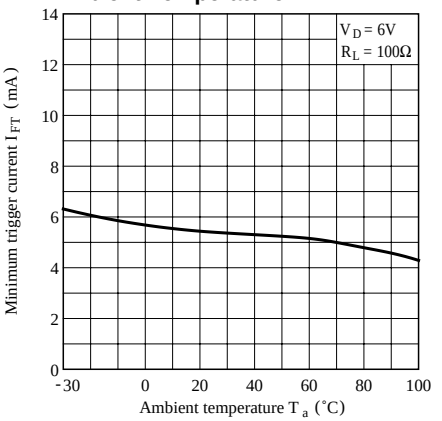


Fig. 5 Relative Repetitive Peak OFF-state Voltage vs. Ambient Temperature

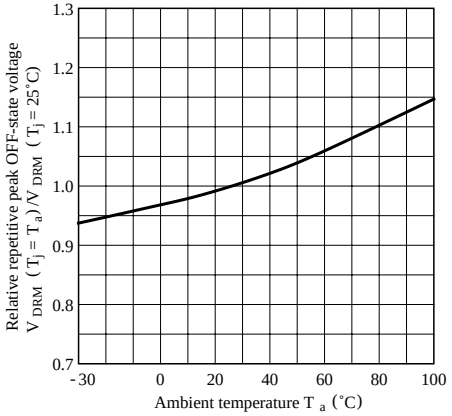


Fig. 6 ON-state Voltage vs. Ambient Temperature

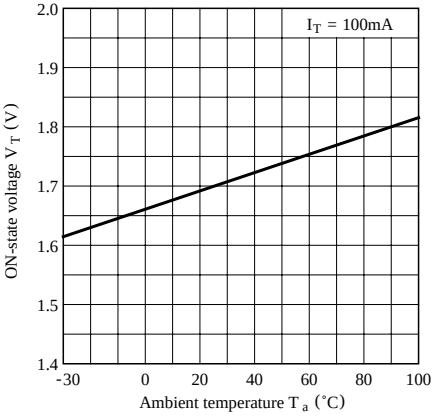


Fig. 7 Holding Current vs. Ambient Temperature

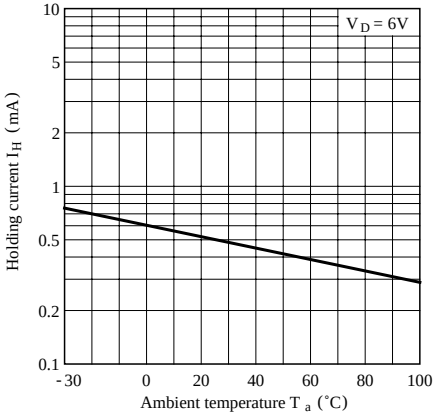


Fig. 8 Repetitive Peak OFF-state Current vs. OFF-state Voltage

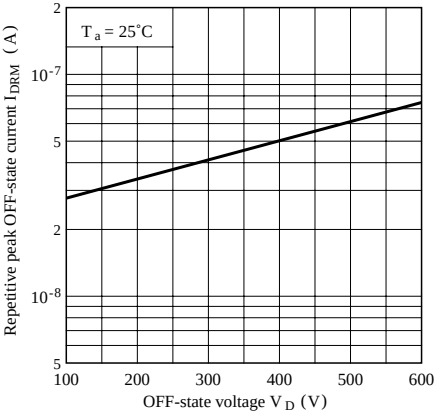


Fig. 9 Repetitive Peak OFF-state Current vs. Ambient Temperature

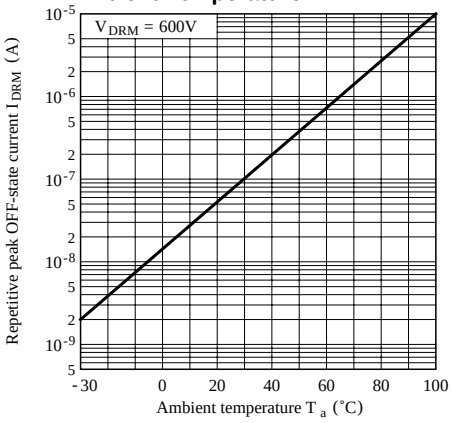


Fig.10 Zero-cross Voltage vs. Ambient Temperature

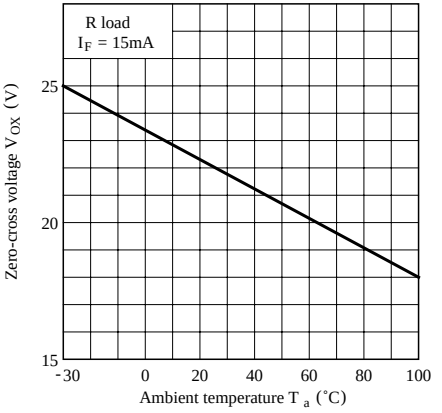
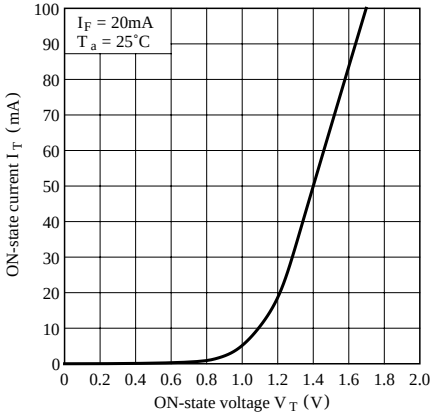
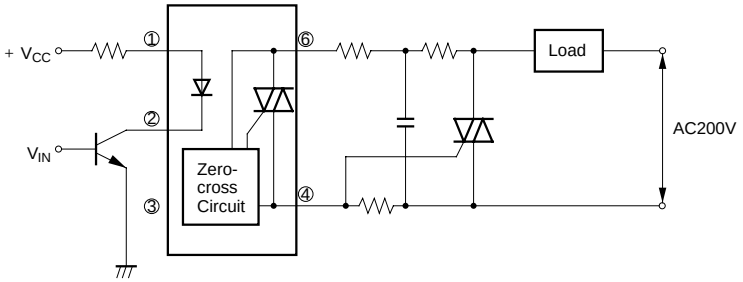


Fig.11 ON-state Current vs. ON-state Voltage



■ Basic Operation Circuit

Medium/High Power Triac Drive Circuit



Note) Please use on condition of the triac for power triggers.

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