

TOSHIBA SOLID STATE AC RELAY

**TSZ2G48S, TSZ2J48S**

OPTICALLY ISOLATED, NORMALLY OPEN SSR

Unit in mm

- COMPUTER PERIPHERALS
- MACHINE TOOL CONTROLS
- PROCESS CONTROL SYSTEMS
- TRAFFIC CONTROL SYSTEMS

- R.M.S On-State Current :  $I_T(\text{RMS}) = 2\text{A}$
- Non-Repetitive Peak Off-State Voltage :  $V_{\text{DSM}} = 400, 600\text{V}$
- TTL Compatible
- Isolation Voltage :  $2000\text{V AC (}t=1\text{min.)}$
- Including Snubber Network

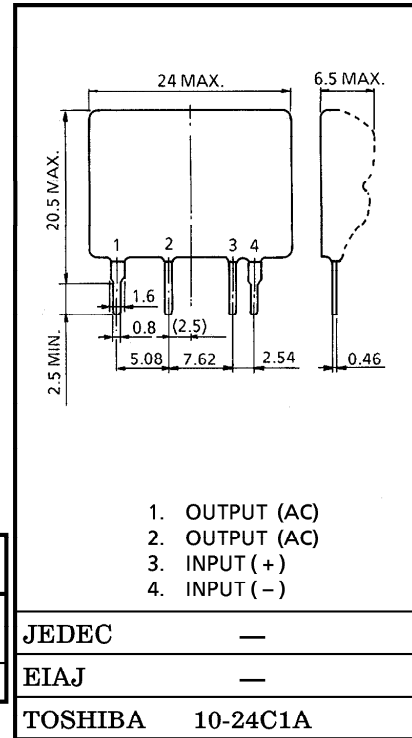
MAXIMUM RATINGS ( $T_a = 25^\circ\text{C}$ )

INPUT (CONTROL)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Control Input Voltage (DC) (Note 1)	$V_F(\text{IN})$	5.5	V
Control Input Current (DC)	$I_F(\text{IN})$	30	mA

OUTPUT (LOAD)

Non-Repetitive Peak Off-State Voltage	TSZ2G48S	$V_{\text{DSM}}$	400	V
	TSZ2J48S		600	
Nominal AC Line Voltage	TSZ2G48S	$V_{\text{AC}}$	120	V
	TSZ2J48S		240	
R.M.S On-State Current	$I_T(\text{RMS})$	2	A	
Peak One Cycle Surge On-State Current (Non-Repetitive)	$I_{\text{TSM}}$	40 (50Hz)	A	
		44 (60Hz)		
Operating Frequency Range	f	45~65	Hz	
Isolation Voltage (t=1min., Input to Output)	$BV_S / \text{AC}$	2000	V	
Operating Temperature Range	$T_{\text{opr}}$	-20~80	°C	
Storage Temperature Range	$T_{\text{stg}}$	-30~80	°C	



Weight : 5g

Note 1 : Driving input rating : Insert an external resistance into SSR when the power supply over 5.5V is used.

Note 2 : Mounting : Soldering of printed wiring board should be used under 260°C and 10 second.

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ELECTRICAL CHARACTERISTICS (Ta = 25°C)  
INPUT (CONTROL)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Pick Up Voltage	$V_{FT}$	$V_{AC} = 100V_{rms}$ Resistive Load	—	—	4.0	V
Drop Out Voltage	$V_{FD}$		0.5	—	—	V
Input Resistance	R (IN)		—	160	—	$\Omega$

OUTPUT (LOAD)

Off-State Leakage Current	TSZ2G48S	$I_{OL}$	$V_{AC} = 100V_{rms}, f = 50Hz$	—	—	1	mA
	TSZ2J48S					$V_{AC} = 200V_{rms}, f = 50Hz$	
Peak On-State Voltage	$V_{TM}$	$I_T (RMS) = 2A$	—	—	1.5	V	
dv / dt (Off-State)	dv / dt	$V_{DSM} = 0.7 \times \text{Rated}$	10	—	—	V / $\mu s$	
Minimum Load Current	—		100	—	—	mA	
Turn-On Time	$t_{on}$	$V_{AC} = 100V_{rms}$ Resistive Load (Fig.1)	—	—	1	ms	
Turn-Off Time	$t_{off}$		—	—	1/2	Cycle	
Isolation Resistance	$R_S$	$V = 500V, R.H = 40 \sim 60\%$	$10^{10}$	—	—	$\Omega$	

EQUIVALEN CIRCUIT

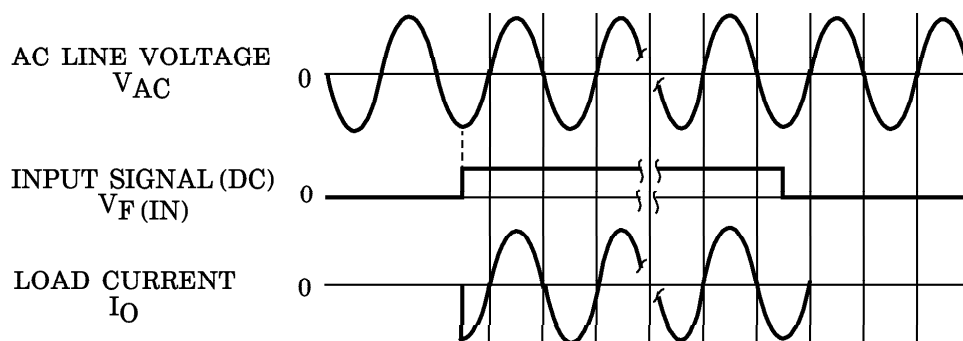
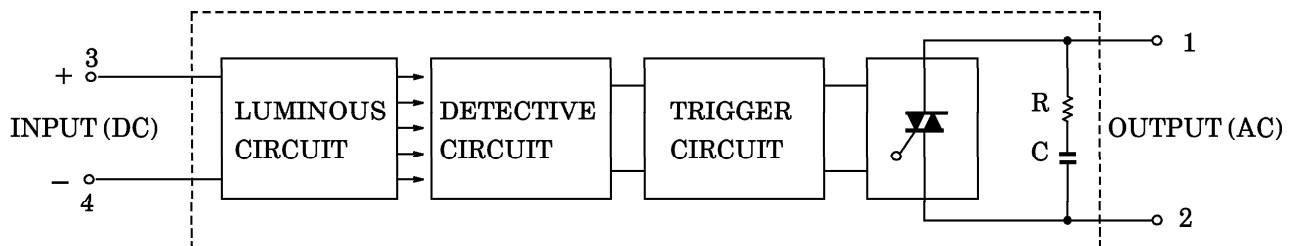


Fig.1 SWITCHING WAVEFORM

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