

TOSHIBA SOLID STATE AC RELAY

TSZ8G48S, TSZ8J48S

○ OPTICALLY ISOLATED, NORMALLY OPEN SSR.

COMPUTER PERIPHERALS
MACHINE TOOL CONTROLS
PROCESS CONTROL SYSTEMS
TRAFFIC CONTROL SYSTEMS

- R. M. S On-State Current : $I_T(\text{RMS}) = 8\text{A}$
- Non-Repetitive Peak Off-State Voltage : $V_{\text{DSM}} = 400, 600\text{V}$
- TTL Compatible
- Including Snubber Network
- Isolation Voltage ($t = 1\text{min.}$) : 2500V AC (Input to Output)
: 1500V AC (Input / Output to Base)

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

INPUT (CONTROL)

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

OUTPUT (LOAD)

Non-Repetitive Peak Off-State Voltage	TSZ8G48S TSZ8J48S	V _{DSM}	400 600	V
Nominal AC Line Voltage	TSZ8G48S TSZ8J48S	V _{AC}	120 240	V
R. M. S On-State Current	I _T (RMS)		8	A
Peak One Cycle Surge On-State Current (Non-Repetitive)	I _{TSM}		80 (50Hz) 88 (60Hz)	A
Operating Frequency Range	f		45~65	Hz
Isolation Voltage (t=1min.)	Input to Output Input/Output to Base	BVS / AC	2500 1500	V
Operating Temperature Range	T _{opr}		-20~80	°C
Storage Temperature Range	T _{stg}		-30~80	°C
Screw Torque (M3)			0.6	N · m

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

2 : Don't dip the SSR body into the organic solvent like Trichloroethylene, when washing the flux on the terminal.

3 : For installation of SSR, use spring-washers, etc., to prevent screws from loosening.

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ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ\text{C}$)
INPUT (CONTROL)

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

OUTPUT (LOAD)

Off-State	TSZ8G48S	I_{OL}	$V_{AC} = 100\text{Vrms}, f = 50\text{Hz}$	—	—	3.0	mA
Leakage Current	TSZ8J48S		$V_{AC} = 200\text{Vrms}, f = 50\text{Hz}$	—	—	6.0	
Peak On-State Voltage		V_{TM}	$I_T(\text{RMS}) = 8\text{A}$	—	—	1.5	V
dv/dt (Off-State)		dv/dt	$V_{DSM} = 0.7 \times \text{Rated}$	50	—	—	$\text{V}/\mu\text{s}$
Turn-On Time		t_{on}	$V_{AC} = 100\text{Vrms}$	—	—	1	ms
Turn-Off Time		t_{off}	Resistive Load (Fig. 1)	—	—	1/2	Cycle
Isolation Resistance		R_S	$V = 500\text{V}, RH = 40\sim 60\%$	10^{10}	—	—	Ω
Thermal Resistance		$R_{th(j-c)}$	AC	—	—	5.6	$^\circ\text{C}/\text{W}$

EQUIVALENT CIRCUIT

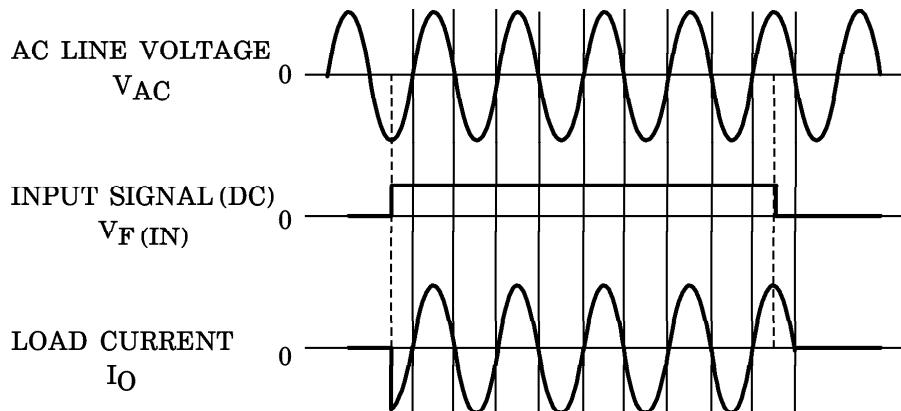
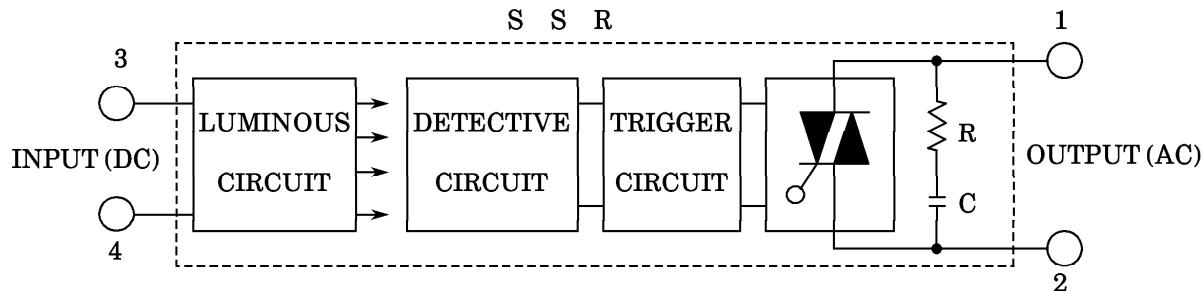


Fig. 1. SWITCHING WAVEFORM

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