TOSHIBA TSZ8J48SR

TOSHIBA SOLID STATE AC RELAY

T S Z 8 J 4 8 S R

OPTICALLY ISOLATED, NORMALLY OPEN SSR

COMPUTOR PERIPHERALS
MACHINE TOOL CONTROLS
PROCESS CONTROL SYSTEMS
TRAFFIC CONTROL SYSTEMS

• R.M.S On-State Current : I_{T (RMS)}=8A

• Non-Repetitive Peak Off-State Voltage : VDSM=600V

• TTL Compatible

• Including Snubber Network

• Isolation Voltage (t=1min.): 3750V AC (Input to Output)

: 1500V AC (Input/Output to Base)

MAXIMUM RATINGS (Ta = 25°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 Voltage	Peak Off-State	$v_{ m DSM}$	600	V	
Nominal AC Line Voltage		v_{AC}	240	V	
R.M.S On-State Current		I _{T (RMS)}	8	Α	
Peak One Cycle Surge On-State Current (Non-Repetitive)		Imare	80 (50Hz)	A	
		ITSM	88 (60Hz)		
Operating Frequency Range		f	45~65	$_{ m Hz}$	
Isolation	Input to Output		3750	V	
Voltage (t=1min.)	Input/Output to Base	BV _S /AC	1500		
Operating Temperature Range		$T_{ m opr}$	-20~80	°C	
Storage Temperature Range		$ extbf{T}_{ ext{stg}}$	-30~80	°C	
Screw Torque (M3)			0.6	N∙m	

(Faston Terminal)

(Faston Terminal)

(Faston Terminal)

(Faston Terminal)

(Faston Terminal)

(Faston Terminal)

(AC)

46.5MAX.

1. OUTPUT (AC)

2. OUTPUT (AC)

3. INPUT (+)

4. INPUT (-)

10-47B1A

JEDEC EIAJ

TOSHIBA

Unit in mm

- 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.

961001EBA2

[■] TOSHIBA is continually working to improve the quality and the reliability of its products. Nevertheless, semiconductor devices in general can malfunction or fail due to their inherent electrical sensitivity and vulnerability to physical stress. It is the responsibility of the buyer, when utilizing TOSHIBA products, to observe standards of safety, and to avoid situations in which a malfunction or failure of a TOSHIBA product could cause loss of human life, bodily injury or damage to property. In developing your designs, please ensure that TOSHIBA products are used within specified operating ranges as set forth in the most recent products specifications. Also, please keep in mind the precautions and conditions set forth in the TOSHIBA Semiconductor Reliability Handbook.

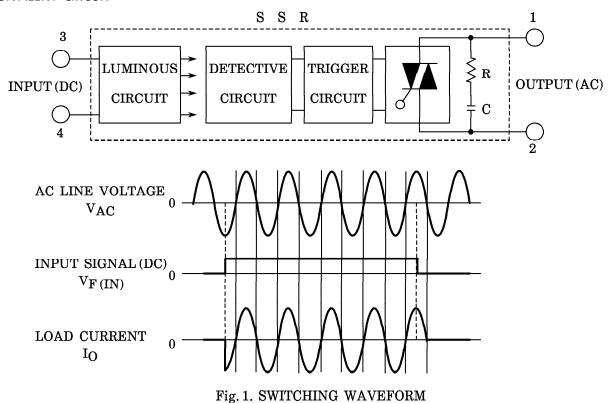
ELECTRICAL CHARACTERISTICS (Ta = 25°C) INPUT (CONTROL)

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

INPUT (CONTROL)

Off-State Leakage Current	$I_{ m OL}$	V _{AC} =200Vrms, f=50Hz	_	_	6.0	mA
Peak On-State Voltage	$ m V_{TM}$	$I_{T (RMS)} = 8A$	_	_	1.5	V
dv/dt (Off-State)	dv / dt	$V_{DSM} = 0.7 \times Rated$	50	_	_	V/μs
Turn-On Time	ton	V _{AC} =100Vrms	_	_	1	ms
Turn-Off Time	${ m t_{off}}$	Resistive Load (Fig.1)	_	_	1/2	Cycle
Isolation Resistance	R_{S}	V=500V, RH=40~60%	10^{10}	_	_	Ω
Thermal Resistance	R _{th (j-c)}	AC	_	_	5.6	°C/W

EQUIVALENT CIRCUIT



961001EBA2'

The products described in this document are subject to foreign exchange and foreign trade control laws.

The information contained herein is presented only as a guide for the applications of our products. No responsibility is assumed by TOSHIBA CORPORATION for any infringements of intellectual property or other rights of the third parties which may result from its use. No license is granted by implication or otherwise under any intellectual property or other rights of TOSHIBA CORPORATION or others.

The information contained herein is subject to change without notice.

