SEMICONDUCTOR **TOSHIBA**

TECHNICAL DATA

TOSHIBA SOLID STATE AC RELAY TSZ8G47S,TSZ8J47S

(TSZ8G47S)

OPTICALLY ISOLATED, NORMALLY OPEN SSR.

COMPUTER PERIPHERALS
MACHINE TOOL CONTROLS
PROCESS CONTROL SYSTEMS
TRAFFIC CONTROL SYSTEMS

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

Repetitive Peak Off-State Voltage: VDRM=400, 600V

• TTL Compatible

• Isolation Voltage : 2060V AC (t=1min)

• Including Snubber Network

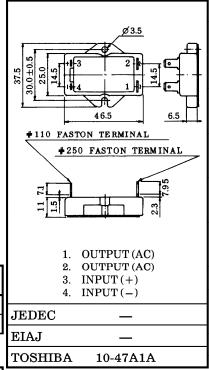
MAXIMUM RATINGS INPUT (CONTROL)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Control Input Voltage (DC) (Note 1)	V _{F(IN)}	6	V
Control Input Current (DC)	I _{F(IN)}	25	mA

OUTPUT (LOAD)

Repetitive Peak	TSZ8G47S	Vans	400	V	
Off-State Voltage	TSZ8J47S	$v_{ m DRM}$	600	V	
Nominal AC Line	TSZ8G47S	VIII	120	\mathbf{v}	
Voltage	TSZ8J47S	VW(RMS)	240	V	
R.M.S On-State Current (with Heat Sink R _{th} =1.0°C/W)	Ta=40°C	I _T (RMS)	8	A	
Peak One Cycle Surge On-State		T	70 (50Hz)	Α	
Current (Non-Repetitive)	TISM	ITSM	77 (60Hz)	A	
Operating Frequency Ran	f	45~65	Hz		
Isolation Voltage (t=1min, Input to Output and Input/Output to Base)		BVs/AC	2060	V	
Operating Temperature Range		$\mathrm{T_{opr}}$	-30~80	$^{\circ}\mathrm{C}$	
Storage Temperature Range		$\mathrm{T_{stg}}$	-30~80	$^{\circ}\mathrm{C}$	
Screw Torque (M3)	_	0.6	N∙m		

Unit in mm



Weight: 31g

- Note 1: Driving input rating: Insert an external resistance into SSR when the power supply over 6V 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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TSZ8G47S – 1
1994 – 5 – 30
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SEMICONDUCTOR **TOSHIBA**

TECHNICAL DATA

T S Z 8 G 4 7 S, T S Z 8 J 4 7 S

(TSZ8G47S)

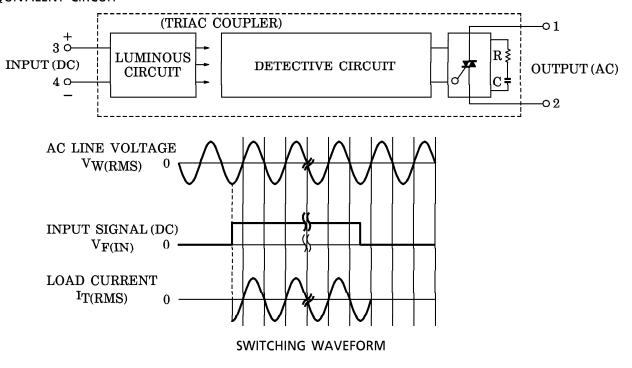
ELECTRICAL CHARACTERISTICS (Ta = 25°C) INPUT (CONTROL)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Pick Up Voltage	$V_{\mathbf{FT}}$	$V_{W(RMS)} = 100V_{rms}$ Resistive Load (R _L =100 Ω)	_	_	4.0	V
Drop Out Voltage	$v_{ m FD}$		1.0	_	_	V
Input Resistance	R(IN)		_	200	_	Ω

OUTPUT (LOAD)

Off-State	TSZ8G47S	Ior	$V_{W(RMS)} = 100V_{rms}$, f=50Hz	_	ı	3.0	
Leakage Current	TSZ8J47S	I_{OL}	$V_{W(RMS)} = 200V_{rms}$, f=50Hz	_		6.0	mA
Peak On-State Vo	ltage	$V_{ extbf{TM}}$	I _{TM} =12A	_	l	1.8	V
dv / dt (Off-State)		dv / dt	$V_{ m DRM} = 0.7 imes m Rated$	10	l	1	$V/\mu s$
dv / dt (Commutati	ng)	(dv / dt)c	$V_{DRM} = 0.7 \times Rated, I_T = 8A$	2	l	1	$V/\mu s$
Turn-On Time	Turn-On Time t_{on} $V_{W(RMS)} = 100V_{rms}$		_	1	1	ms	
Turn-Off Time		$t_{ ext{off}}$	Resistive Load (R _L =100 Ω)	_	1	1/2	Cycle
Isolation Resistance	ee	$R_{\mathbf{S}}$	$V = 1kV, R.H = 40 \sim 60\%$	10^{10}	l	1	Ω
Thermal Resistance	e	$ m R_{th(j-c)}$	Junction to Case	_	_	2.5	°C/W

EQUIVALENT CIRCUIT



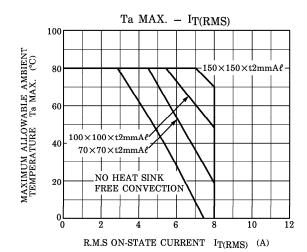
TSZ8G47S – 2
1994 – 5 – 30
TORHURA CORRODATION

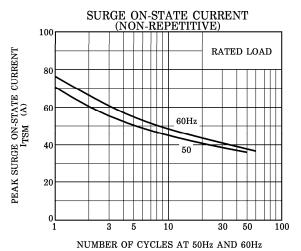
SEMICONDUCTOR **TOSHIBA**

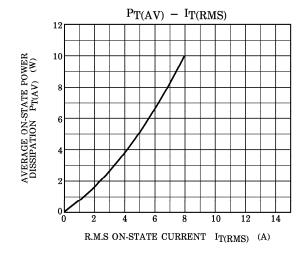
TECHNICAL DATA

T S Z 8 G 4 7 S, T S Z 8 J 4 7 S

(TSZ8G47S)







TSZ8G47S – 3*
1994 – 5 – 30