

(TSZ3G44S)

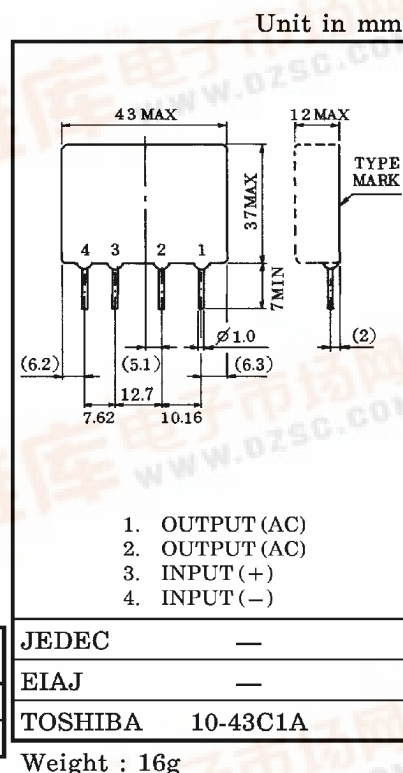
OPTICALLY ISOLATED, NORMALLY OPEN SSR.

COMPUTER PERIPHERALS
MACHINE TOOL CONTROLS
PROCESS CONTROL SYSTEMS
TRAFFIC CONTROL SYSTEMS

- R.M.S On-State Current : $I_T(RMS) = 3A$
- Repetitive Peak Off-State Voltage : $V_{DRM} = 400, 600V$
- TTL Compatible
- Isolation Voltage : 2060V AC ($t = 1min$)
- Including Snubber Network

MAXIMUM RATINGS ($T_a = 25^\circ C$)
INPUT (CONTROL)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Control Input Voltage (DC) (Note 1)	$V_F(IN)$	6	V
Control Input Current (DC)	$I_F(IN)$	20	mA



OUTPUT (LOAD)

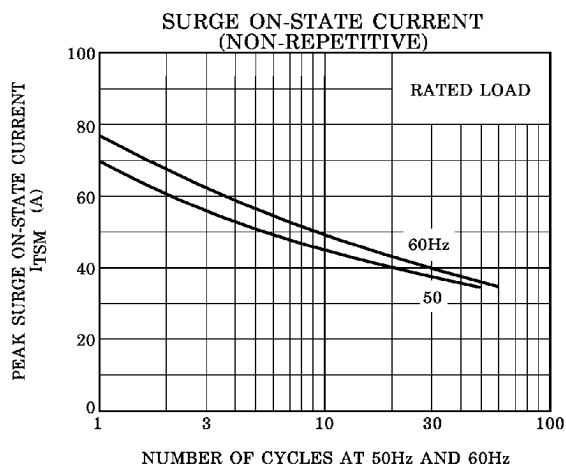
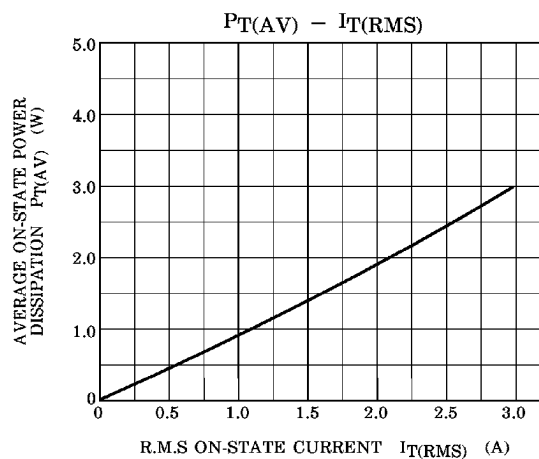
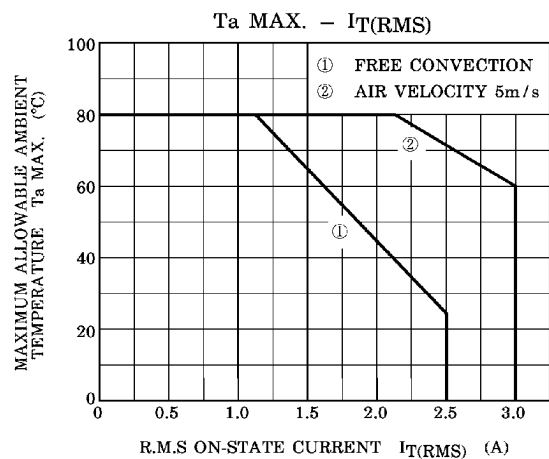
Repetitive Peak Off-State Voltage	TSZ3G44S	V_{DRM}	400	V
	TSZ3J44S		600	
Nominal AC Line Voltage	TSZ3G44S	$V_W(RMS)$	120	V
	TSZ3J44S		240	
R.M.S On-State Current (with air velocity 5m/s)		$I_T(RMS)$	3	A
Peak One Cycle Surge On-State Current (Non-Repetitive)		I_{TSM}	70 (50Hz)	A
			77 (60Hz)	
Operating Frequency Range		f	45~65	Hz
Isolation Voltage ($t = 1min$, Input to Output)		BVs / AC	2060	V
Operating Temperature Range		T_{opr}	-30~80	$^\circ C$
Storage Temperature Range		T_{stg}	-30~80	$^\circ C$

Note 1 : Driving input rating : Insert an external resistance into SSR when the power supply over 6V is used.

2 : Mounting : Soldering of printed wiring board should be used under 260 $^\circ C$ and 10 second.

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CHARACTERISTIC CURVES



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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 _{W(RMS)} = 100V _{rms} Resistive Load (R _L = 100Ω)	—	—	4.5	V
Drop Out Voltage	V _{FD}		1.0	—	—	V
Input Resistance	R(IN)		—	300	—	Ω

OUTPUT (LOAD)

Off-State Leakage Current	TSZ3G44S	I _{OL}	V _{W(RMS)} = 100V _{rms} , f = 50Hz	—	—	2	mA
	TSZ3J44S		V _{W(RMS)} = 200V _{rms} , f = 50Hz	—	—	4	
Peak On-State Voltage	V _{TM}	I _{TM} = 12A	—	—	1.9	V	
Peak Turn-On Voltage	V _{ON}	V _{W(RMS)} = 100V _{rms} , (Fig.2)	—	—	10	V	
dv / dt (Off-State)	dv / dt	V _{DRM} = 0.7 × Rated	10	—	—	V / μs	
dv / dt (Commutating)	(dv / dt) _c	V _{DRM} = 0.7 × Rated, I _T = 3A	2	—	—	V / μs	
Turn-On Time	t _{on}	V _{W(RMS)} = 100V _{rms} Resistive Load (R _L = 100Ω)	—	—	1	ms	
Turn-Off Time	t _{off}		—	—	1 / 2	Cycle	
Isolation Resistance	R _S	V = 1kV, R.H = 40 ~ 60%	—	10 ⁹	—	Ω	

EQUIVALENT CIRCUIT

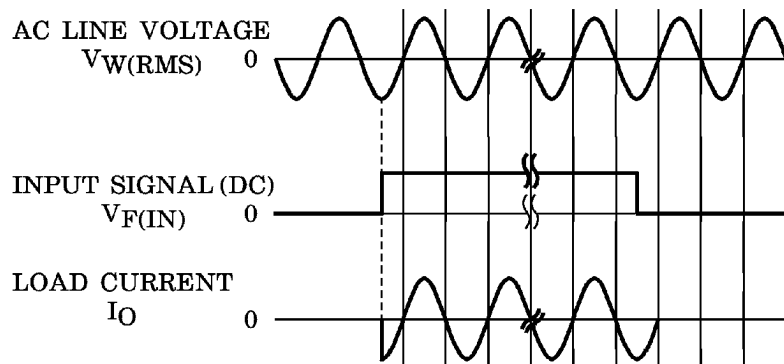
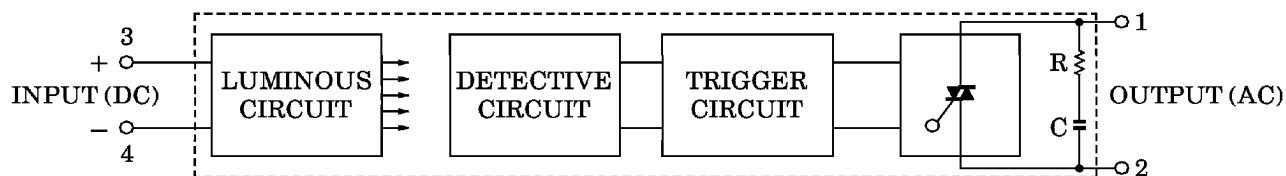


Fig.1 SWITCHING WAVEFORM

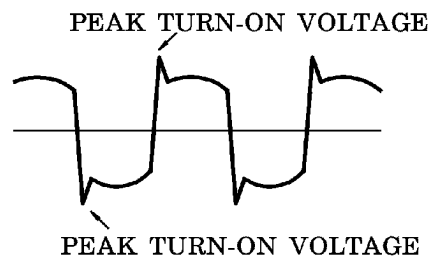


Fig.2 PEAK TURN-ON VOLTAGE WAVEFORM