

(TSZ3G44S)

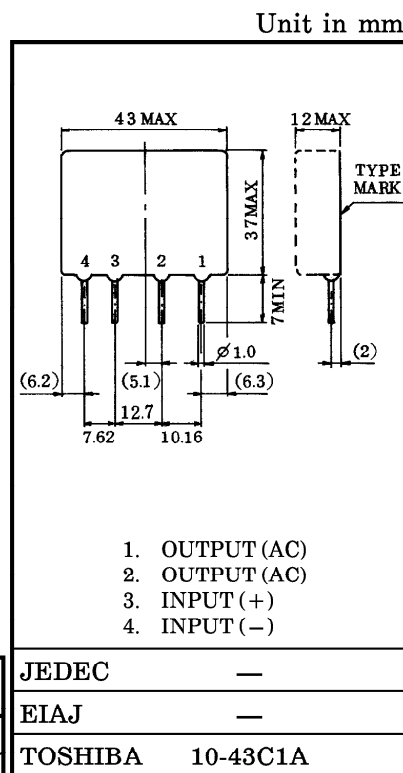
OPTICALLY ISOLATED, NORMALLY OPEN SSR.

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 (Ta = 25°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



Weight : 16g

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)		BV_S / AC	2060	V
Operating Temperature Range		T_{opr}	-30~80	°C
Storage Temperature Range		T_{stg}	-30~80	°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°C and 10 second.

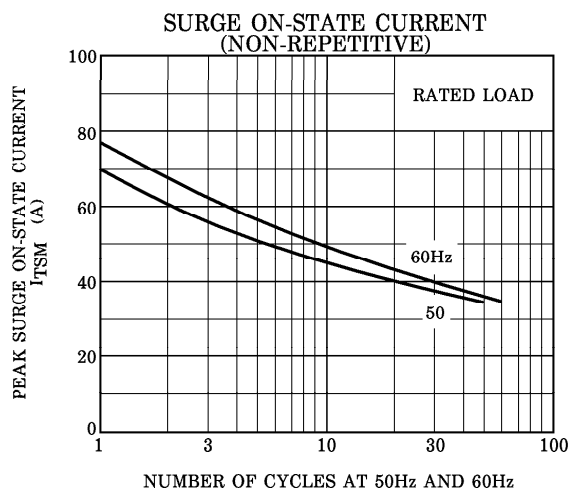
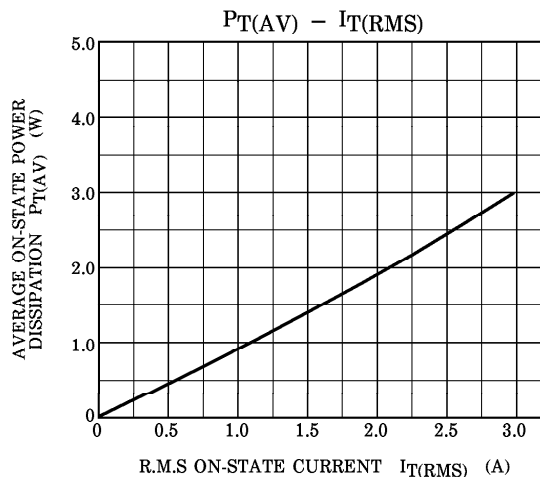
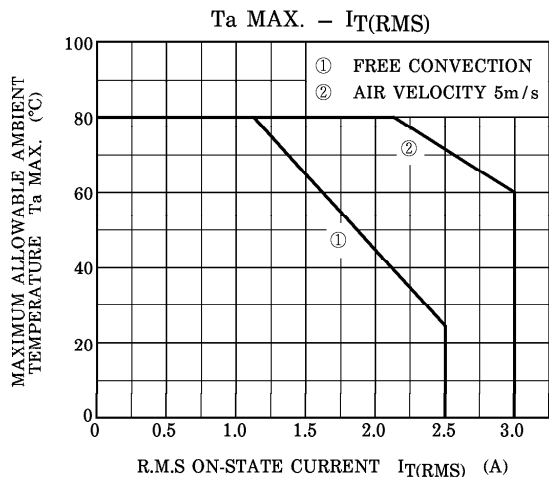
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(TSZ3G44S)

CHARACTERISTIC CURVES



(TSZ3G44S)
 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 ($R_L = 100\Omega$)	—	—	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						
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	$V_{DRM} = 0.7 \times \text{Rated}$	10	—	—	V / μs	
dv / dt (Commutating)	(dv / dt)c	$V_{DRM} = 0.7 \times \text{Rated}, I_T = 3A$	2	—	—	V / μs	
Turn-On Time	t_{on}	$V_{W(RMS)} = 100V_{rms}$	—	—	1	ms	
Turn-Off Time	t_{off}	Resistive Load ($R_L = 100\Omega$)	—	—	1 / 2	Cycle	
Isolation Resistance	R_S	$V = 1kV, R.H = 40 \sim 60\%$	—	10^9	—	Ω	

EQUIVALENT CIRCUIT

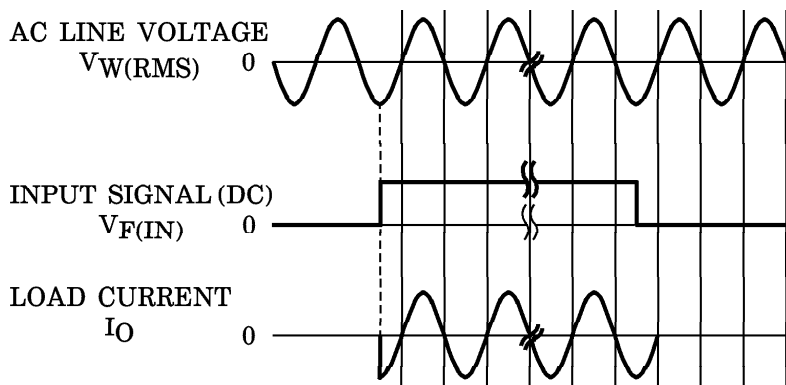
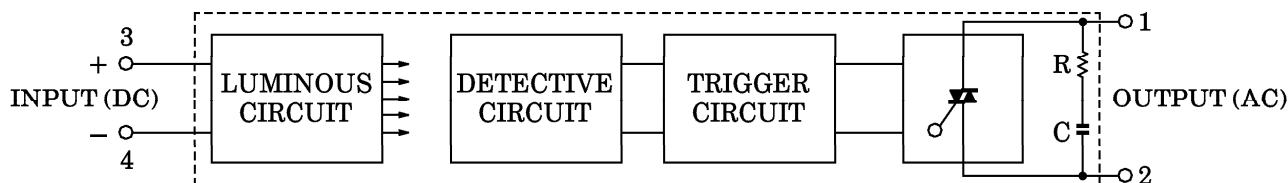


Fig.1 SWITCHING WAVEFORM

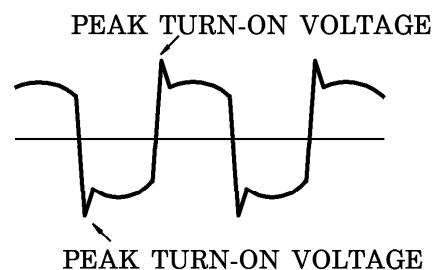


Fig.2 PEAK TURN-ON VOLTAGE WAVEFORM