

(TSZ3G44S)

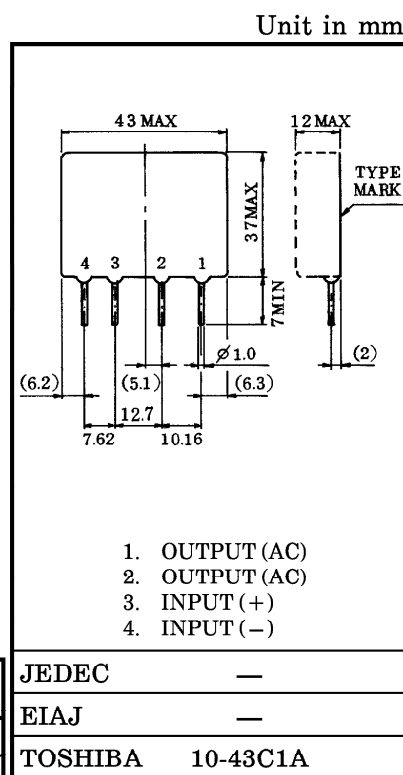
OPTICALLY ISOLATED, NORMALLY OPEN SSR.

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)

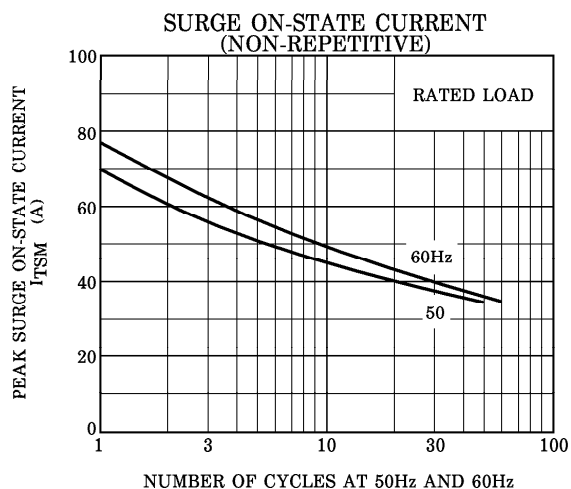
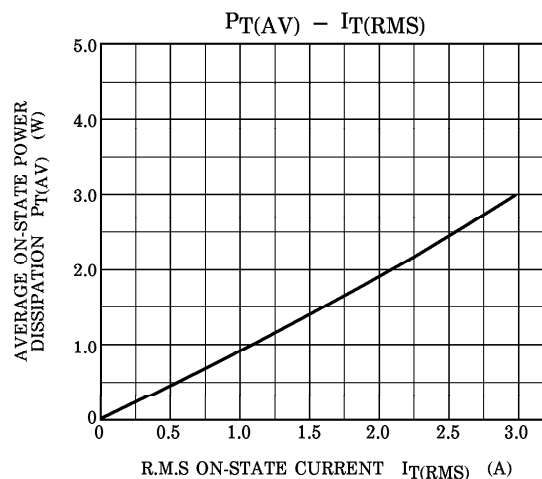
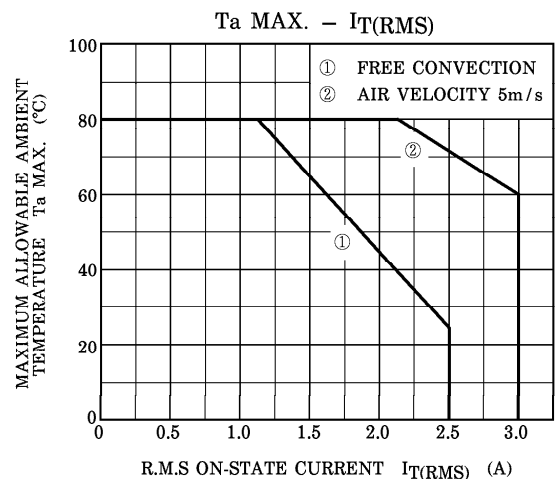
Repetitive Peak Off-State Voltage	TSZ3G44S	V _{DRM}	400	V
	TSZ3J44S		600	
Nominal AC Line Voltage	TSZ3G44S	V _{W(RMS)}	120	V
	TSZ3J44S		240	
R.M.S On-State Current (with air velocity 5m/s)		I _{T(RMS)}	3	A
Peak One Cycle Surge On-State Current (Non-Repetitive)		I _{TSM}	70 (50Hz)	A
			77 (60Hz)	
Operating 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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CHARACTERISTIC CURVES



TSZ3G44S - 3*

1994 - 5 - 30

TOSHIBA CORPORATION

(TSZ3G44S)

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

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Pick Up Voltage	V_{FT}	$V_W(\text{RMS}) = 100V_{\text{rms}}$ Resistive Load ($R_L = 100\Omega$)	—	—	4.5	V
Drop Out Voltage	V_{FD}		1.0	—	—	V
Input Resistance	$R(\text{IN})$		—	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}	—	—	1	ms
Turn-Off Time		t _{off}	Resistive Load (R _L =100Ω)	—	—	1 / 2	Cycle
Isolation Resistance		R _S	V=1kV, R.H=40~60%	—	10 ⁹	—	Ω

EQUIVALENT CIRCUIT

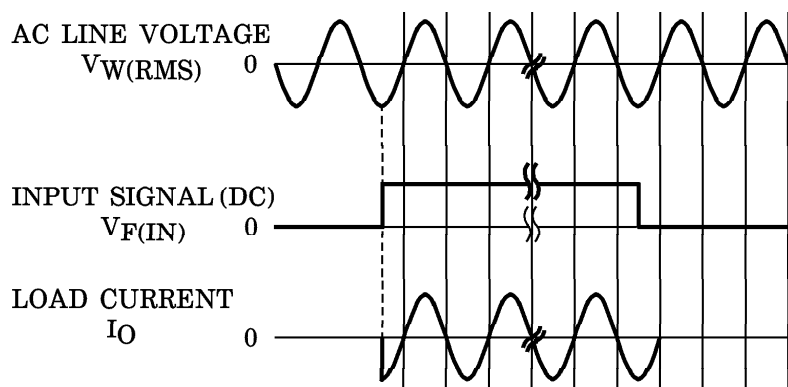
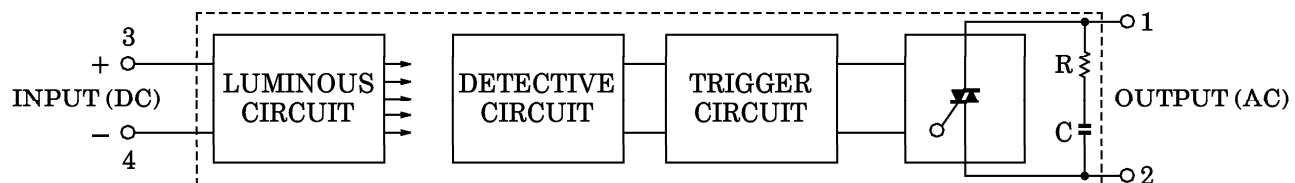


Fig.1 SWITCHING WAVEFORM

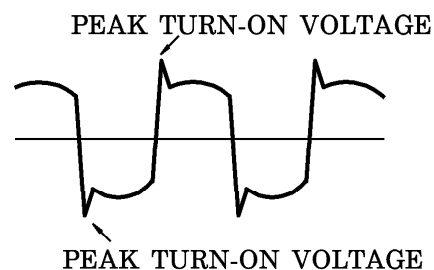


Fig.2 PEAK TURN-ON VOLTAGE WAVEFORM