

TOSHIBA (DISCRETE/OPTO)

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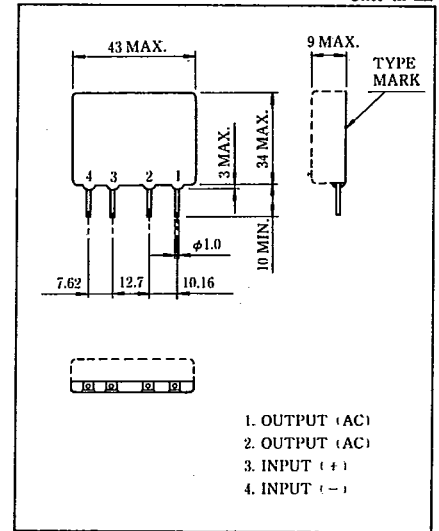
**TSS1J44**

600V 1A

Unit in mm

**MAXIMUM RATINGS**

| CHARACTERISTIC   |                                   | SYMBOL       | RATING            | UNIT     |             |
|--|-----------------------------------|--------------|-------------------|----------|-------------|
| Output   | Repetitive Peak Off-state Voltage | TSS1D44      | 200               | V        |             |
|  |                                   | TSS1G44      | 400               |          |             |
|  |                                   | TSS1H44      | 500               |          |             |
|  |                                   | TSS1J44      | 600               |          |             |
|  | RMS On-state Current              | $I_{T(RMS)}$ | 1                 | A        |             |
| Peak One Cycle Surge On-state Current (Non-Repetitive) |                                   | $I_{TSM}$    | 13(60Hz) 12(50Hz) | A        |             |
| Operating Frequency Range                              |                                   | f            | 45~65             | Hz       |             |
| Input  | Control Input Voltage (DC)        | $V_{F(IN)}$  | 6                 | V        |             |
|  | Control Input Current (DC)        | $I_{F(IN)}$  | 20                | mA       |             |
|  | Input Resistance                  | $R_{(IN)}$   | 300(Typical)      | $\Omega$ |             |
| Input/output   | Isolation (t = 1 min.)            | AC           | BVs/AC            | V        |             |
|  |                                   | DC           | BVs/DC            |          |             |
|  | Operating Temperature Range       |              | Top               | -30~80   | $^{\circ}C$ |
|  | Storage Temperature Range         |              | Tstg              | -30~80   | $^{\circ}C$ |



**ELECTRICAL CHARACTERISTICS**

| CHARACTERISTIC |                           | SYMBOL    | CONDITION                             | MIN                     | TYP | MAX    | UNIT       |
|----------------|---------------------------|-----------|---------------------------------------|-------------------------|-----|--------|------------|
| Input          | Pick Up Voltage           | $V_{FT}$  | $V_{W(RMS)}=100V_{rms}$               | -                       | -   | 4.5    | V          |
|                | Pick Up Current           | $I_{FT}$  |                                       | -                       | -   | 8      | mA         |
|                | Drop Out Voltage          | $V_{FD}$  |                                       | 1                       | -   | -      | V          |
|                | Drop Out Current          | $I_{FD}$  |                                       | 1                       | -   | -      | mA         |
| Output         | Off-state Leakage Current | $I_{DR}$  | $V_{DR} = \text{Rated (DC Voltage)}$  | -                       | -   | 10     | mA         |
|                | Peak On-state Voltage     | $V_{TM}$  | $I_{TM} = 6 A$                        | -                       | -   | 2.6    | V          |
|                | Peak Turn-on Voltage      | $V_{ON}$  | $V_{W(RMS)}=100V_{rms}$               | -                       | -   | 5      | V          |
|                | DC Holding Current        | $I_H$     | $R_L = 100\Omega$                     | -                       | -   | 25     | mA         |
|                | dv/dt (Off-state)         | dv/dt     | $V_{DRM} = 0.7 \text{ Rated}$         | 50                      | -   | -      | V/ $\mu s$ |
|                | dv/dt (Commutating)       | dv/dt (c) | $V_{DRM} = 0.7 \text{ Rated } I_T=1A$ | 2                       | -   | -      | V/ $\mu s$ |
| Input/output   | Turn-on Time              | $t_{on}$  | $V_{W(RMS)}=100V_{rms}$               | -                       | -   | 1/2    | Cycle      |
|                | Turn-off Time             | $t_{off}$ |                                       | -                       | -   | 1/2    | Cycle      |
|                | Isolation Resistance      | $R_s$     |                                       | $V=1kV, R_H=40\sim60\%$ | -   | $10^9$ | -          |

**CHARACTERISTIC CURVES**

