

TOSHIBA SUPER FAST RECOVERY RECTIFIER SILICON DIFFUSED TYPE

3GU41

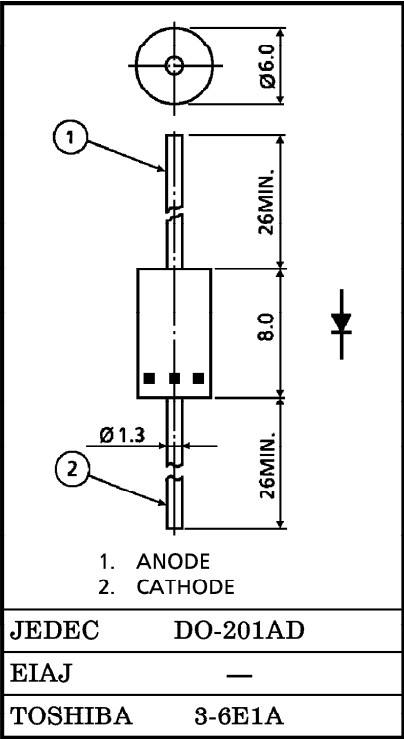
SWITCHING TYPE POWER SUPPLY APPLICATIONS

Unit in mm

- Repetitive Peak Reverse Voltage :  $V_{RRM}=100\sim400V$
- Average Forward Current :  $I_F(AV)=3.0A$
- Very Fast Reverse-Recovery Time :  $t_{rr}=100ns$

MAXIMUM RATINGS

| CHARACTERISTIC                                        | SYMBOL    | RATING                 | UNIT        |
|-------------------------------------------------------|-----------|------------------------|-------------|
| Repetitive Peak Reverse Voltage                       | $V_{RRM}$ | 400                    | V           |
| Average Forward Current                               | $I_F(AV)$ | 3.0                    | A           |
| Peak One Cycle Surge Forward Current (Non-Repetitive) | $I_{FSM}$ | 80 (50Hz)<br>88 (60Hz) | A           |
| Junction Temperature                                  | $T_j$     | $-40\sim150$           | $^{\circ}C$ |
| Storage Temperature Range                             | $T_{stg}$ | $-40\sim150$           | $^{\circ}C$ |



ELECTRICAL CHARACTERISTICS ( $T_a = 25^{\circ}C$ )

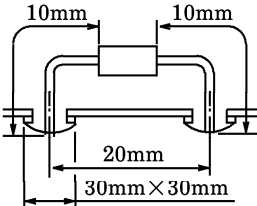
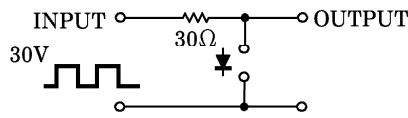
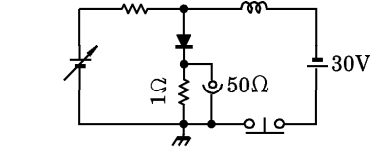
Weight : 1.18g

| CHARACTERISTIC                  | SYMBOL        | TEST CONDITION             | MIN. | TYP. | MAX. | UNIT          |
|---------------------------------|---------------|----------------------------|------|------|------|---------------|
| Peak Forward Voltage            | $V_{FM}$      | $I_{FM}=3.0A$              | —    | —    | 1.5  | V             |
| Repetitive Peak Reverse Current | $I_{RRM}$     | $V_{RRM}=400V$             | —    | —    | 300  | $\mu A$       |
| Reverse Recovery Time (Note 1)  | $t_{rr}$      | $I_F=1A, di/dt=-30A/\mu s$ | —    | —    | 100  | ns            |
| Forward Recovery Time (Note 2)  | $t_{fr}$      | $I_F=1.0A$                 | —    | —    | 200  | ns            |
| Thermal Resistance (Note 3)     | $R_{th(j-a)}$ | Junction to Ambient        | —    | —    | 37   | $^{\circ}C/W$ |
| Thermal Resistance (Note 4)     | $R_{th(j-l)}$ | Junction to Lead           | —    | —    | 12   | $^{\circ}C/W$ |

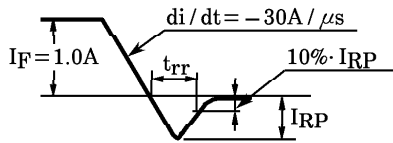
Note 1 :  $t_{rr}$  TEST CIRCUIT

Note 2 :  $t_{fr}$  TEST CIRCUIT

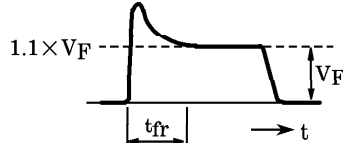
Note 3 : THERMAL RESISTANCE



WAVEFORM

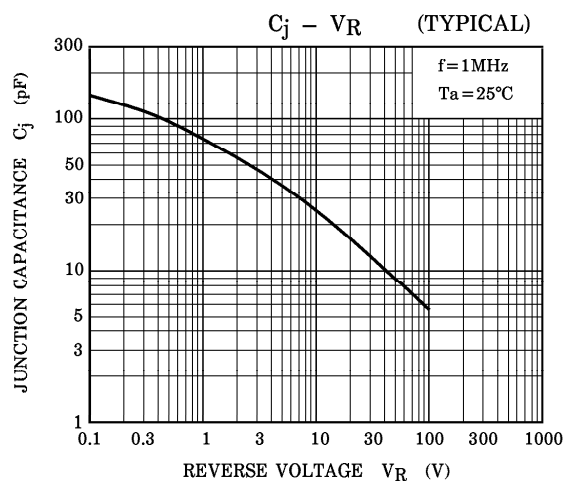
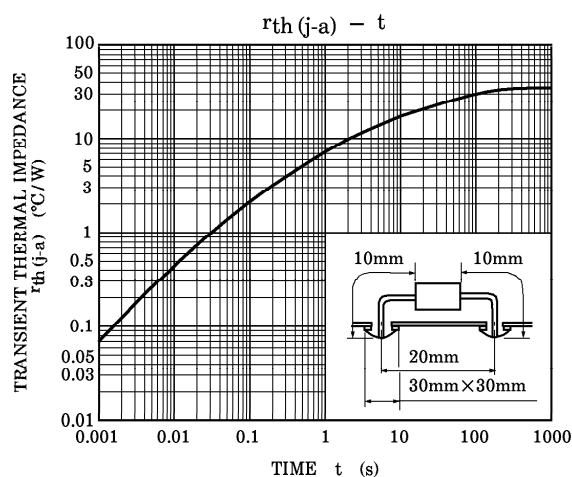
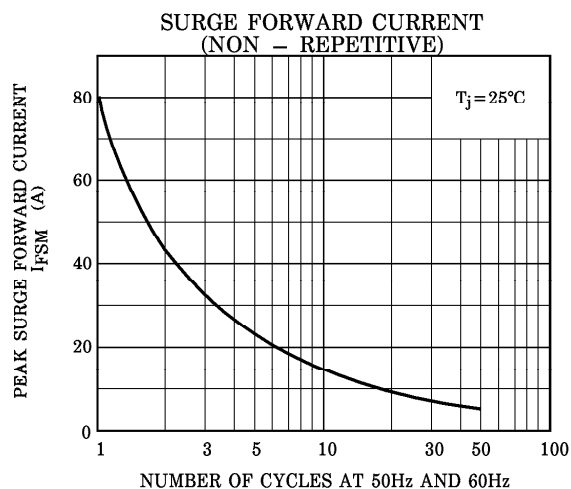
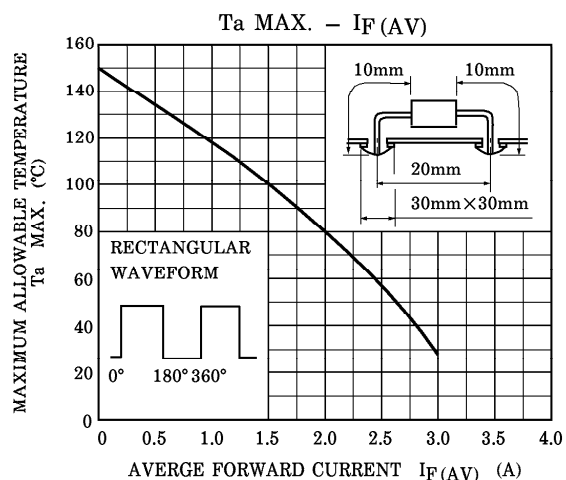
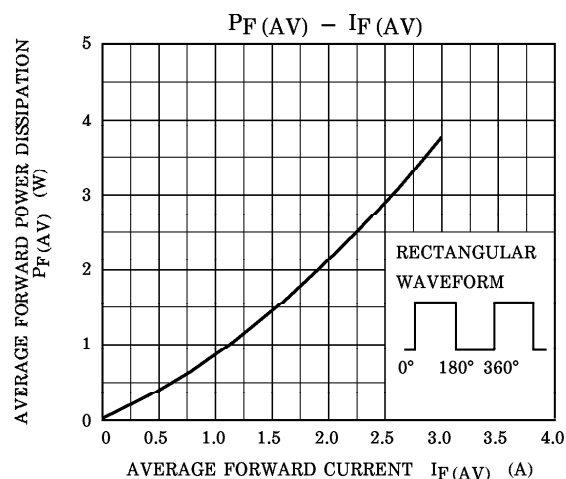
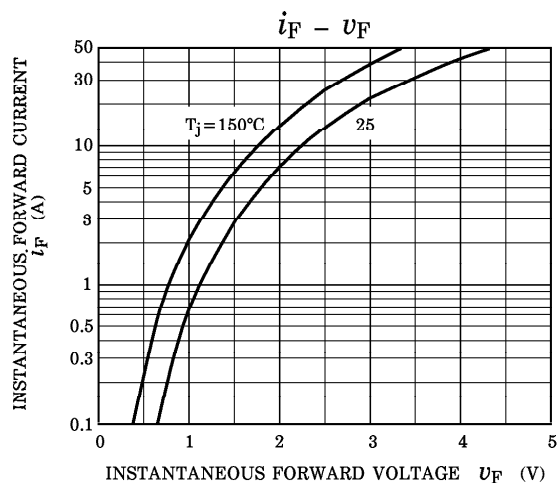


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