

TOSHIBA RECTIFIER SILICON DIFFUSED TYPE

# 1GU42

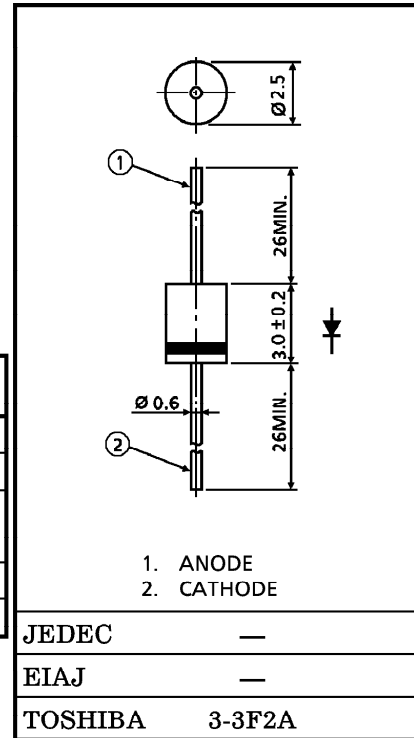
HIGH SPEED RECTIFIER APPLICATIONS  
(FAST RECOVERY)

Unit in mm

- Average Forward Current :  $I_F(AV)=1.0A$
- Repetitive Peak Reverse Voltage :  $V_{RRM}=400V$
- Reverse Recovery Time :  $t_{rr}=100ns$  (Max.)
- Plastic Mold Type.

**MAXIMUM RATINGS**

| CHARACTERISTIC  | SYMBOL    | RATING                 | UNIT |
|---|-----------|------------------------|------|
| Repetitive Peak Reverse Voltage                       | $V_{RRM}$ | 400                    | V    |
| Average Forward Current                               | $I_F(AV)$ | 1.0                    | A    |
| Peak One Cycle Surge Forward Current (Non-Repetitive) | $I_{FSM}$ | 15 (50Hz)<br>17 (60Hz) | A    |
| Junction Temperature Range                            | $T_j$     | -40~150                | °C   |
| Storage Temperature Range                             | $T_{stg}$ | -40~150                | °C   |

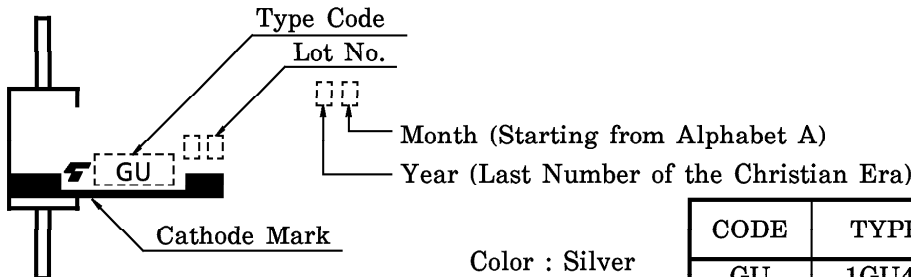


**ELECTRICAL CHARACTERISTICS** ( $T_a = 25^\circ C$ )

Weight : 0.18g

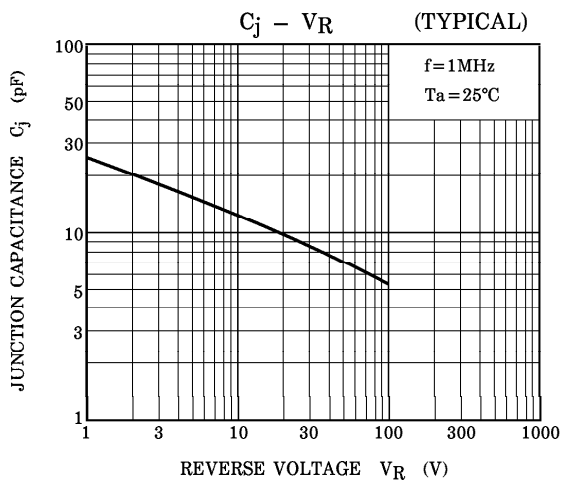
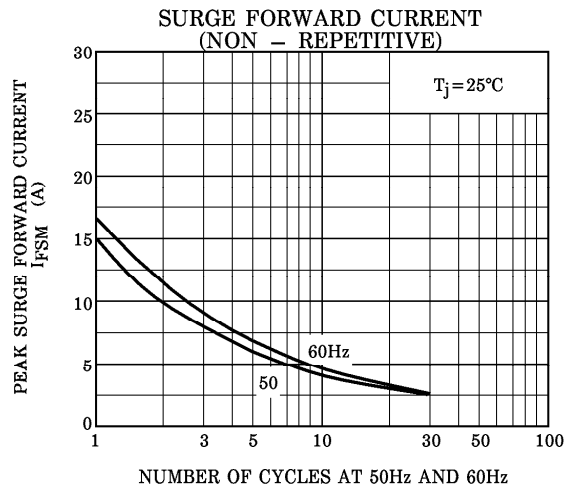
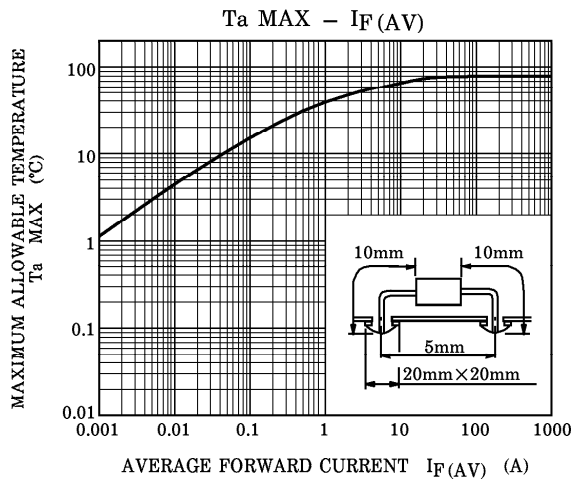
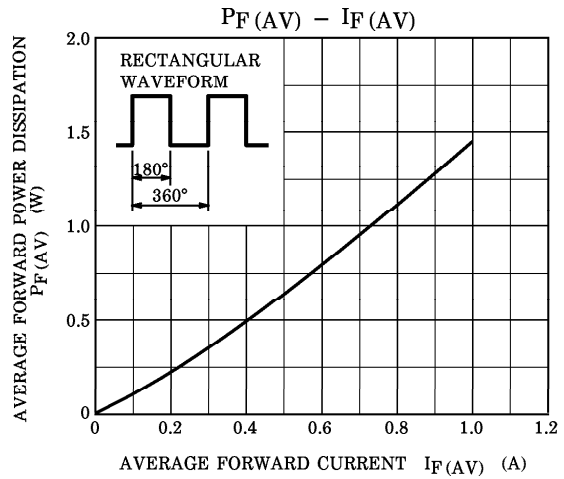
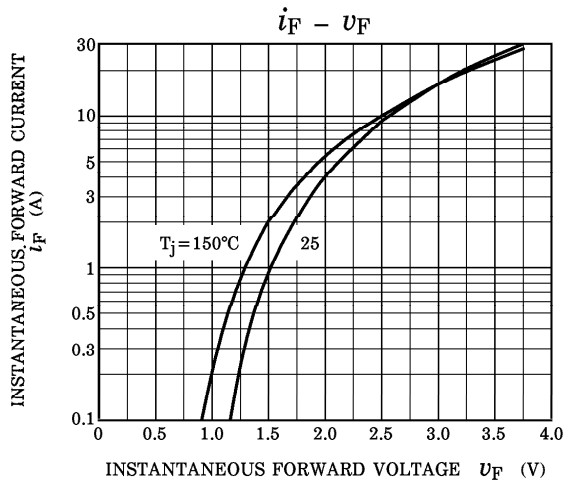
| CHARACTERISTIC                  | SYMBOL    | TEST CONDITION                 | MIN. | TYP. | MAX. | UNIT    |
|---------------------------------|-----------|--------------------------------|------|------|------|---------|
| Peak Forward Voltage            | $V_{FM}$  | $I_{FM}=1.0A$                  | —    | —    | 1.5  | V       |
| Repetitive Peak Reverse Current | $I_{RRM}$ | $V_{RRM}=400V$                 | —    | —    | 50   | $\mu A$ |
| Reverse Recovery Time           | $t_{rr}$  | $I_F=1.0A, di/dt = -30A/\mu s$ | —    | —    | 100  | ns      |
| Forward Recovery Time           | $t_{fr}$  | $I_F=1.0A$                     | —    | —    | 250  | ns      |

**MARKING**



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