

SANYO

DFD05T

Diffused Junction Type Silicon Diode

0.5A Power Rectifier

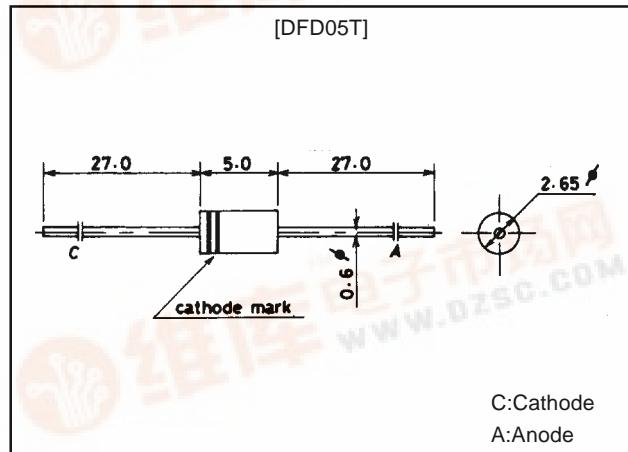
Features

- High-speed switching use.
- Plastic molded structure.
- Reverse recovery time $t_{rr}=0.15\mu s$ max (B, C, E, G).
 $t_{rr}=0.3\mu s$ max (J, L, N, R, T).
- Peak reverse voltage: $V_{RM}=100$ to $1700V$
- Average rectified current $I_O=0.5A$

Package Dimensions

unit:mm

1174

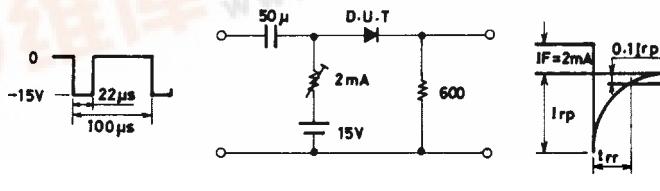
**Specifications****Absolute Maximum Ratings at $T_a = 25^\circ C$**

| Parameter | Symbol | Conditions | DFD05TB | DFD05TC | DFD05TE | DFD05TG | Unit |
|---------------------------|-----------|------------------------|---------|---------|---------|-------------|------------|
| Peak Reverse Voltage | V_{RM} | | 100 | 200 | 400 | 600 | V |
| Average Rectified Current | I_O | $T_a=50^\circ C$ | → | → | → | 0.5 | A |
| Surge Forward Current | I_{FSM} | 50Hz sine wave, 1cycle | → | → | → | 30 | A |
| Junction Temperature | T_j | | → | → | → | 150 | $^\circ C$ |
| Storage Temperature | T_{stg} | | → | → | → | -40 to +150 | $^\circ C$ |

| Parameter | Symbol | Conditions | DFD05TJ | DFD05TL | DFD05TN | DFD05TR | DFD05TT | Unit |
|---------------------------|-----------|-------------------------|---------|---------|---------|---------|-------------|------------|
| Peak Reverse Voltage | V_{RM} | | 800 | 1000 | 1200 | 1500 | 1700 | V |
| Average Rectified Current | I_O | $T_a=50^\circ C$ | → | → | → | → | 0.5 | A |
| Surge Forward Current | I_{FSM} | 50Hz sine wave, 1 cycle | → | → | → | → | 20 | A |
| Junction Temperature | T_j | | → | → | → | → | 125 | $^\circ C$ |
| Storage Temperature | T_{stg} | | → | → | → | → | -40 to +150 | $^\circ C$ |

Electrical Characteristics at $T_a = 25^\circ C$

| Parameter | Symbol | Conditions | Ratings | | | Unit | |
|-----------------------|----------|--------------------------------------|---------|-----|-----|------|---------|
| | | | min | typ | max | | |
| Forward Voltage | V_F | $I_F=0.5A$ (B, C, E, G) | | | | 1.2 | V |
| | | $I_F=0.5A$ (J, L, N, R, T) | | | | 1.5 | V |
| Reverse Current | I_R | V_R :At each V_{RM} | | | | 10 | μA |
| | | $I_F=2mA$, $V_R=15V$ (B, C, E, G) | | | | 0.15 | μs |
| Reverse Recovery Time | t_{rr} | $I_F=2mA$, $VR=15V$ (J, L, N, R, T) | | | | 0.3 | μs |

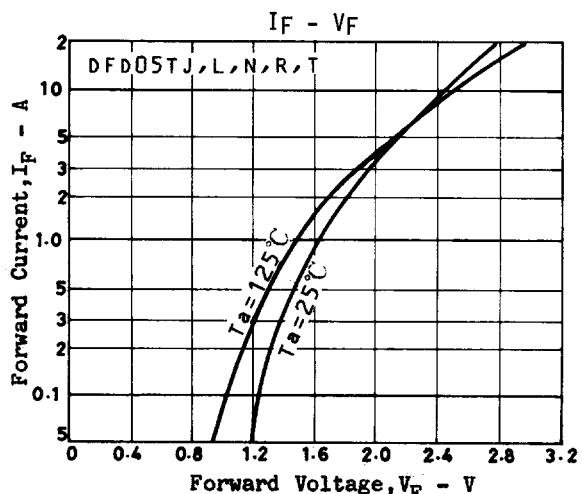
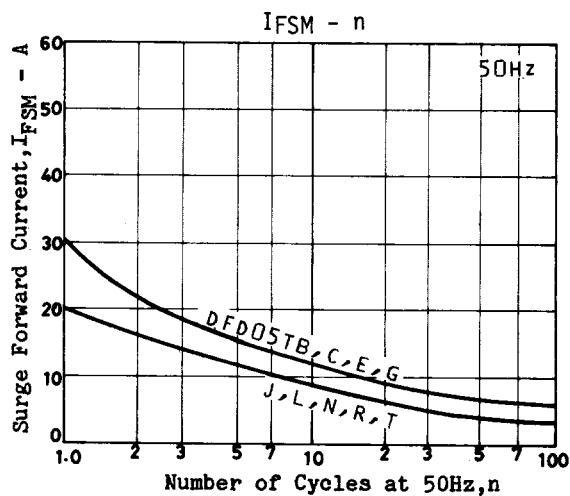
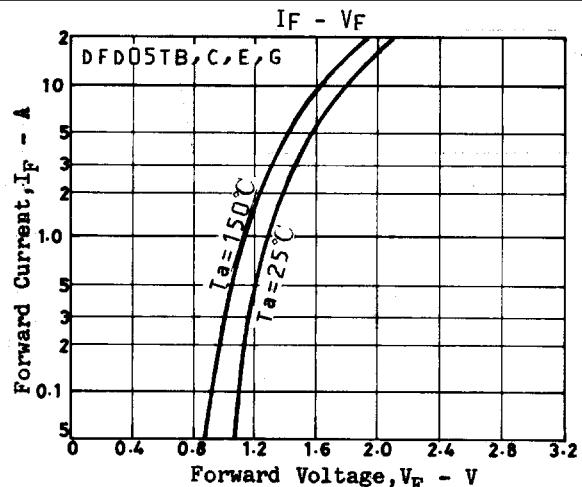
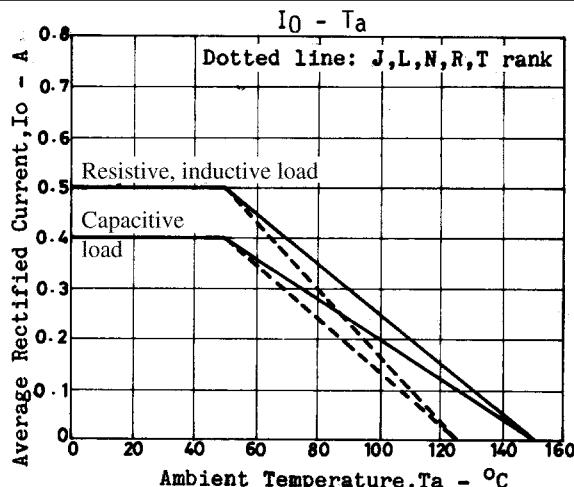
Reverse Recovery Time Test Circuit

Unit (resistance:Ω, capacitance:F)

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DFD05T



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