

**SANYO****DFD05T**

Diffused Junction Type Silicon Diode

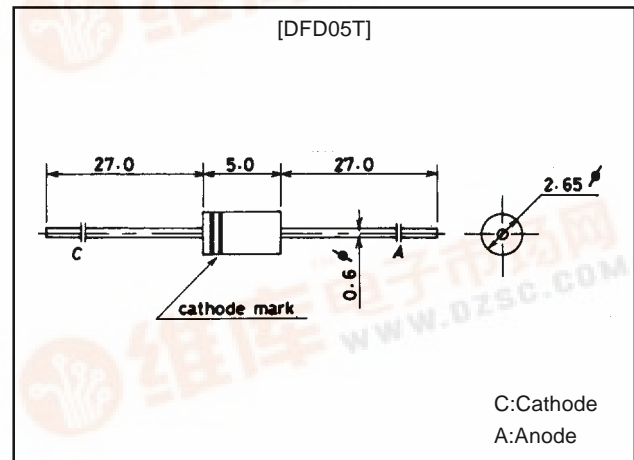
**0.5A Power Rectifier****Features**

- 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

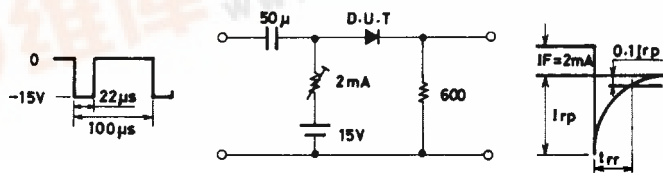
**Specifications****Absolute Maximum Ratings at  $T_a = 25^\circ C$** 

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, 1 cycle	→	→	→	30	A
Junction Temperature	$T_j$		→	→	→	150	$^\circ C$
Storage Temperature	$T_{stg}$		→	→	→	-40 to +150	$^\circ C$

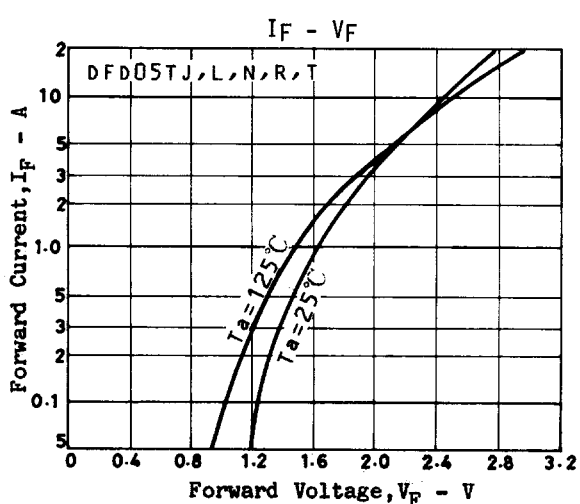
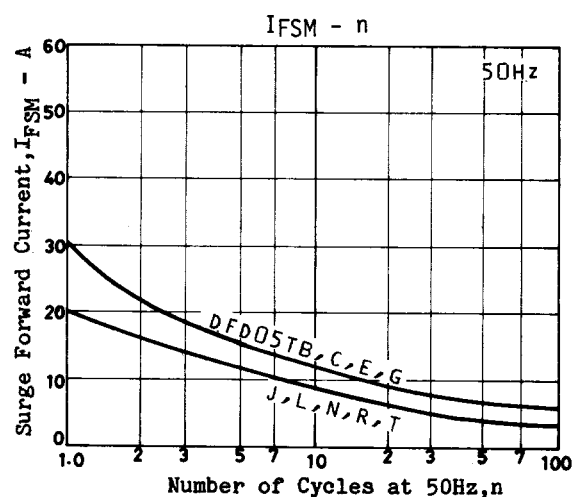
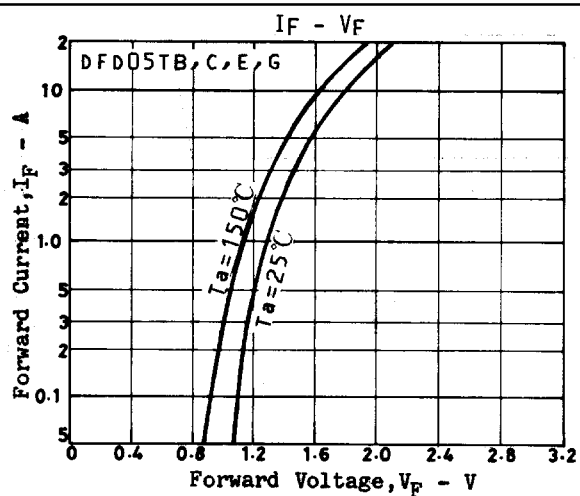
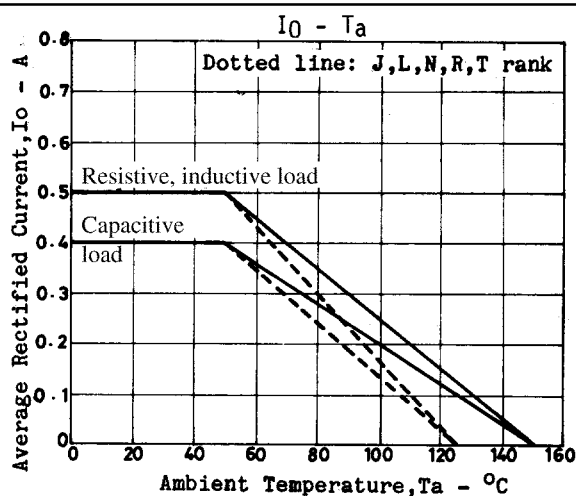
Parameter	Symbol	Conditions	DFD05TJ	DFD05TL	DFD05TN	DFD05TR	DFD05TT	Unit
Peak Reverse Voltage	$V_{RM}$		800	1000	1200	1500	1700	V
Average Rectified Current	$I_O$	$T_a=50^\circ C$	→	→	→	→	0.5	A
Surge Forward Current	$I_{FSM}$	50Hz sine wave, 1 cycle	→	→	→	→	20	A
Junction Temperature	$T_j$		→	→	→	→	125	$^\circ C$
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	$\mu A$
Reverse Recovery Time	$t_{rr}$	$I_F=2mA$ , $V_R=15V$ (B, C, E, G)			0.15	$\mu s$
		$I_F=2mA$ , $V_R=15V$ (J, L, N, R, T)			0.3	$\mu s$

**Reverse Recovery Time Test Circuit**Unit (resistance:  $\Omega$ , capacitance: F)

## DFD05T



■ No products described or contained herein are intended for use in surgical implants, life-support systems, aerospace equipment, nuclear power control systems, vehicles, disaster/crime-prevention equipment and the like, the failure of which may directly or indirectly cause injury, death or property loss.

■ Anyone purchasing any products described or contained herein for an above-mentioned use shall:

- ① Accept full responsibility and indemnify and defend SANYO ELECTRIC CO., LTD., its affiliates, subsidiaries and distributors and all their officers and employees, jointly and severally, against any and all claims and litigation and all damages, cost and expenses associated with such use;
- ② Not impose any responsibility for any fault or negligence which may be cited in any such claim or litigation on SANYO ELECTRIC CO., LTD., its affiliates, subsidiaries and distributors or any of their officers and employees jointly or severally.

■ Information (including circuit diagrams and circuit parameters) herein is for example only; it is not guaranteed for volume production. SANYO believes information herein is accurate and reliable, but no guarantees are made or implied regarding its use or any infringements of intellectual property rights or other rights of third parties.