

**DFD30T**

Diffused Junction Type Silicon Diode

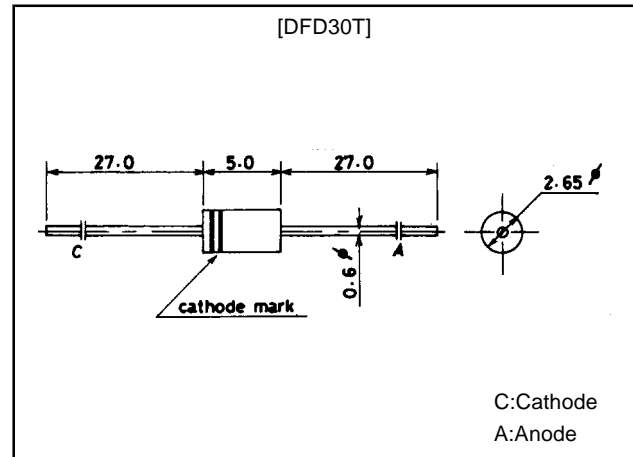
3.0A Power Rectifier**Features**

- High-speed switching use.
- Reverse recovery time $t_{rr}=0.15\mu\text{s}$ max (B, C, E, G).
 $t_{rr}=0.3\mu\text{s}$ max (J, L).
- Peak reverse voltage: $V_{RM}=100$ to 1000V
- Average Rectified current $I_O=3.0\text{A}$

Package Dimensions

unit:mm

1177

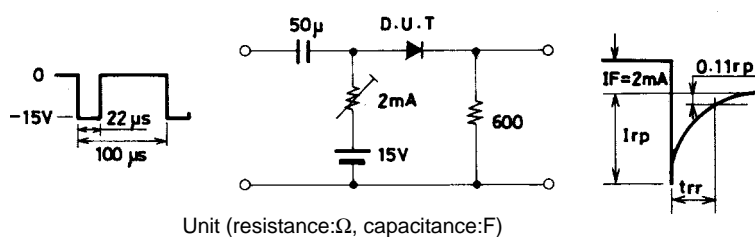
**Specifications****Absolute Maximum Ratings at $T_a = 25^\circ\text{C}$**

Parameter	Symbol	Conditions	DFD30TB	DFD30TC	DFD30TE	DFD30TG	Unit
Peak Reverse Voltage	V_{RM}		100	200	400	600	V
Average Rectified Current	I_O	$T_a=25^\circ\text{C}$	→	→	→	3.0	A
Surge Forward Current	I_{FSM}	50Hz sine wave, 1 cycle	→	→	→	140	A
Junction Temperature	T_j		→	→	→	150	$^\circ\text{C}$
Storage Temperature	T_{stg}		→	→	→	-40 to +150	$^\circ\text{C}$

Parameter	Symbol	Conditions	DFD30TJ	DFD30TL		Unit
Peak Reverse Voltage	V_{RM}		800	1000		V
Average Rectified Current	I_O	$T_a=25^\circ\text{C}$	→	3.0		A
Surge Forward Current	I_{FSM}	50Hz sine wave, 1 cycle	→	80		A
Junction Temperature	T_j		→	125		$^\circ\text{C}$
Storage Temperature	T_{stg}		→	-40 to +150		$^\circ\text{C}$

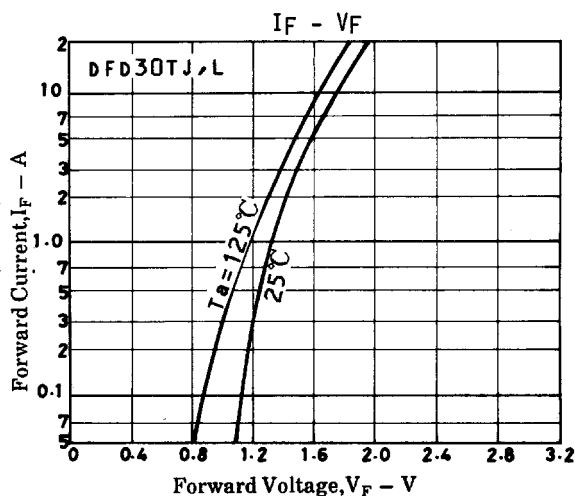
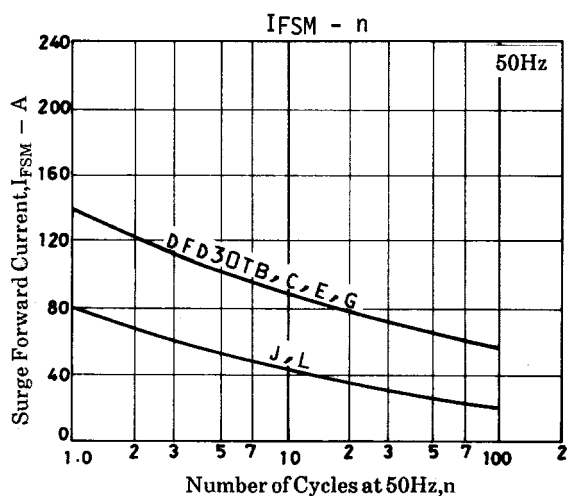
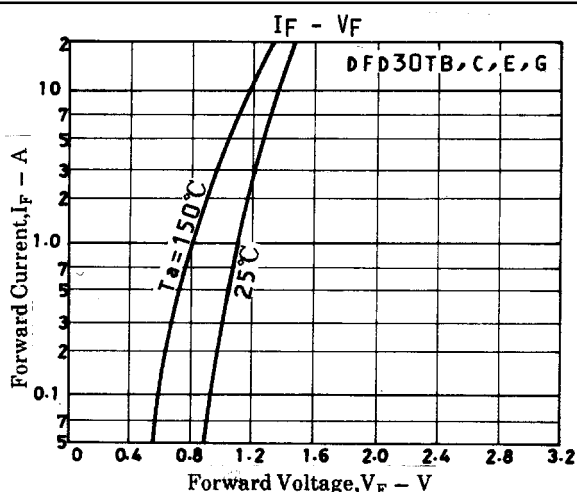
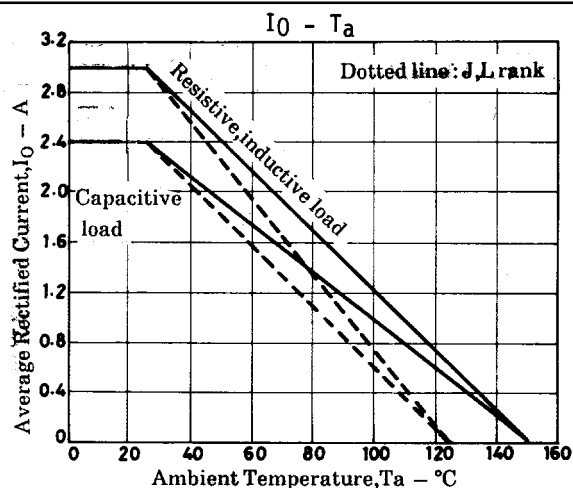
Electrical Characteristics at $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Forward Voltage	V_F	$I_F=3.0\text{A}$ (B, C, E, G)			1.2	V
		$I_F=3.0\text{A}$ (J, L)			1.5	V
Reverse Current	I_R	V_R :At each V_{RM}			20	μA
Reverse Recovery Time	t_{rr}	$I_F=2\text{mA}$, $V_R=15\text{V}$ (B,C, E, G)			0.15	μs
		$I_F=2\text{mA}$, $V_R=15\text{V}$ (J, L)			0.3	μs

Reverse Recovery Time Test Circuit

SANYO Electric Co.,Ltd. Semiconductor Business Headquarters
TOKYO OFFICE, Tokyo Bldg., 1-10, Chome, Ueno, Taito-ku, TOKYO, 110-8534 JAPAN

DFD30T



■ 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.

This catalog provides information as of May, 1998. Specifications and information herein are subject to change without notice.