TOSHIBA Fast Recovery Diode Silicon Diffused Type

TFR4N, TFR4T

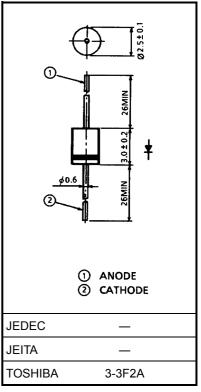
Strobo Flasher Applications (fast recovery)

Unit: mm

- Average Forward Current: IF (AV) = 0.3 A
- Repetitive Peak Reverse Voltage: $V_{RRM} = 1000, 1500 \text{ V}$
- Reverse Recovery Time: $t_{rr} = 4 \mu s$

Maximum Ratings (Ta = 25°C)

Characteristics		Symbol	Rating	Unit	
Repetitive peak	TFR4N	V_{RRM}	1000	V	
reverse voltage	TFR4T	VRRM	1500		
Average forward current		I _{F (AV)}	0.3	Α	
I ² t limit value (t = 1 to 10 ms)		l ² t	0.5	A ² s	
Peak one cycle surge forward current (non repetitive)		I _{FSM}	10 (50 Hz)	Α	
Junction temperature		Tj	-40 to 125	°C	
Storage temperature range		T _{stg}	-40 to 125	°C	

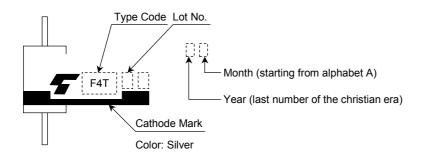


Weight: 0.18 g (typ.)

Electrical Characteristics (Ta = 25°C)

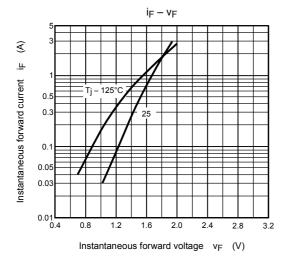
Characteristics	Symbol	Test Condition	Min	Тур.	Max	Unit
Peak forward voltage	V_{FM}	I _{FM} = 0.5 A	_	_	1.5	V
Repetitive peak reverse current	I _{RRM}	V _{RRM} = Rated			10	μΑ
Reverse recovery time	t _{rr}	$I_F = 20 \text{ mA}, I_R = 1 \text{ mA}$	_	_	4	μS

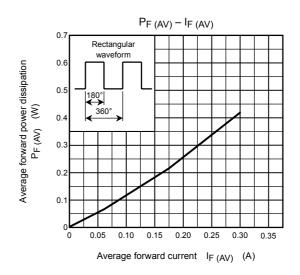
Marking

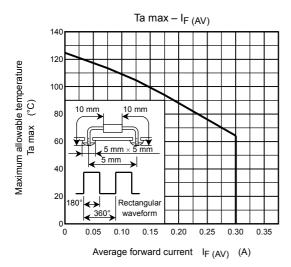


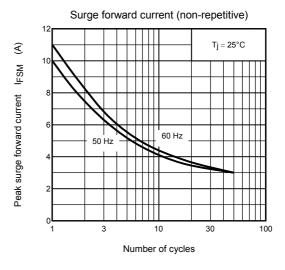
Code	Туре
F4N	TFR4N
F4T	TFR4T

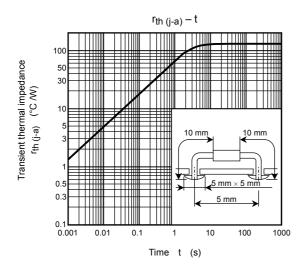
2











3 2003-02-17

RESTRICTIONS ON PRODUCT USE

000707EAA

- TOSHIBA is continually working to improve the quality and reliability of its products. Nevertheless, semiconductor devices in general can malfunction or fail due to their inherent electrical sensitivity and vulnerability to physical stress. It is the responsibility of the buyer, when utilizing TOSHIBA products, to comply with the standards of safety in making a safe design for the entire system, and to avoid situations in which a malfunction or failure of such TOSHIBA products could cause loss of human life, bodily injury or damage to property. In developing your designs, please ensure that TOSHIBA products are used within specified operating ranges as set forth in the most recent TOSHIBA products specifications. Also, please keep in mind the precautions and conditions set forth in the "Handling Guide for Semiconductor Devices," or "TOSHIBA Semiconductor Reliability Handbook" etc..
- The TOSHIBA products listed in this document are intended for usage in general electronics applications (computer, personal equipment, office equipment, measuring equipment, industrial robotics, domestic appliances, etc.). These TOSHIBA products are neither intended nor warranted for usage in equipment that requires extraordinarily high quality and/or reliability or a malfunction or failure of which may cause loss of human life or bodily injury ("Unintended Usage"). Unintended Usage include atomic energy control instruments, airplane or spaceship instruments, transportation instruments, traffic signal instruments, combustion control instruments, medical instruments, all types of safety devices, etc.. Unintended Usage of TOSHIBA products listed in this document shall be made at the customer's own risk.
- The information contained herein is presented only as a guide for the applications of our products. No
 responsibility is assumed by TOSHIBA CORPORATION for any infringements of intellectual property or other
 rights of the third parties which may result from its use. No license is granted by implication or otherwise under
 any intellectual property or other rights of TOSHIBA CORPORATION or others.
- The information contained herein is subject to change without notice.