

TOSHIBA FAST RECOVERY DIODE SILICON DIFFUSED TYPE

100FXG13, 100FXH13

HIGH SPEED RECTIFIER APPLICATIONS

Unit in mm

- Repetitive Peak Reverse Voltage : $V_{RRM}=3000V$
- Average Forward Current : $I_F(AV)=100A$
- Reverse Recovery Time ($T_j=25^\circ C$) : $t_{rr}=2.5\mu s$

MAXIMUM RATINGS

CHARACTERISTIC	SYMBOL	RATING	UNIT
Repetitive Peak Reverse Voltage	V_{RRM}	3000	V
Non-Repetitive Peak Reverse Voltage (Non-Repetitive $\leq 5ms$, $T_j=0\sim 125^\circ C$)	V_{RSM}	3000	V
Average Forward Current	$I_F(AV)$	100	A
Peak One Cycle Surge Forward Current (Non-Repetitive)	I_{FSM}	2000 (50Hz) 2200 (60Hz)	A
Junction Temperature Range	T_j	$-40\sim 125$	$^\circ C$
Storage Temperature Range	T_{stg}	$-40\sim 125$	$^\circ C$
Screw Torque	—	1.6	N·m

	100FXG13	100FXH13
1	ANODE	CATHODE
2	CATHODE	ANODE
JEDEC	—	
EIAJ	—	
TOSHIBA	3-29A1A	3-29A1B

Weight : 100g

ELECTRICAL CHARACTERISTICS

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	MAX.	UNIT
Repetitive Peak Reverse Current	I_{RRM}	$V_{RRM}=3000V$, $T_j=125^\circ C$	—	30	mA
Peak Forward Voltage	V_{FM}	$I_{FM}=320A$ ($T_j=25^\circ C$)	—	1.8	V
Reverse Recovery Time	t_{rr}	$I_F=100A$ $di_F/dt=100A/\mu s$	$T_j=25^\circ C$ $T_j=125^\circ C$	2.5 3.0	μs
Thermal Resistance	$R_{th(j-c)}$	Junction to Case	—	0.2	$^\circ C/W$

Note : Contact thermal resistance $R_{th(c-f)}=0.07^\circ C/W$ (Applied silicone grease)

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