

TOSHIBA FAST RECOVERY DIODE SILICON DIFFUSED TYPE

# 100FXG13, 100FXH13

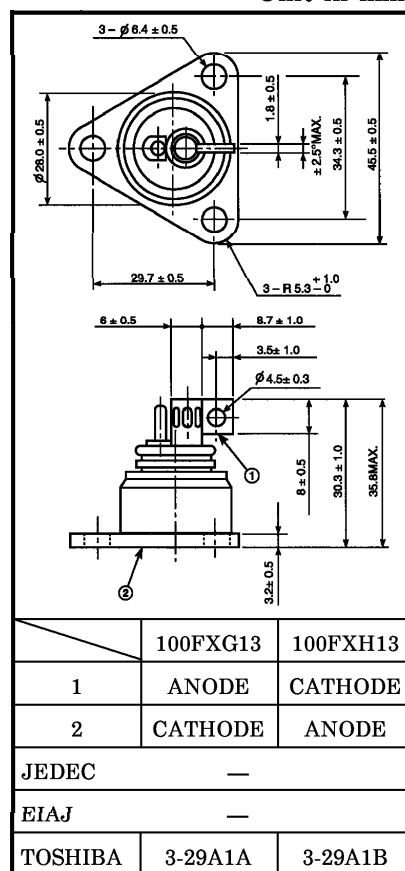
HIGH SPEED RECTIFIER APPLICATIONS

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	$T_j$	-40~125	$^\circ C$
Storage Temperature Range	$T_{stg}$	-40~125	$^\circ C$
Screw Torque	—	1.6	N·m



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	$t_{rr}$	$I_F=100A$ $di_F/dt=100A/\mu s$	$T_j=25^\circ C$	—	2.5	$\mu s$
			$T_j=125^\circ C$	—	3.0	
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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