

TOSHIBA FAST RECOVERY DIODE SILICON DIFFUSED TYPE

**500YKH22**

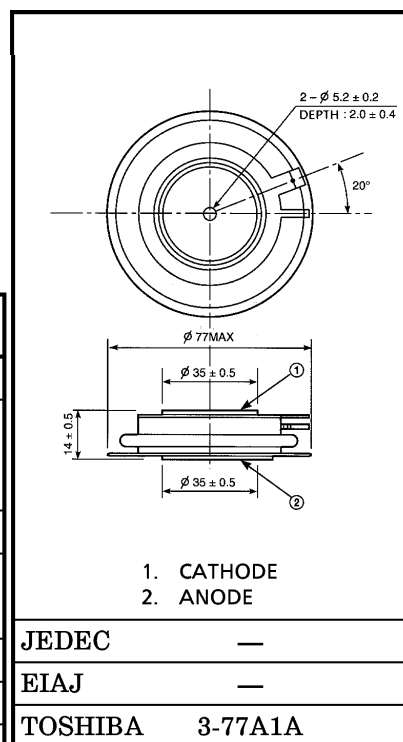
HIGH SPEED RECTIFIER APPLICATIONS

Unit in mm

- Repetitive Peak Reverse Voltage :  $V_{RRM}=2700V$
- Average Forward Current :  $I_F(AV)=500A$
- Reverse Recovery Time :  $t_{rr}=5\mu s$  (MAX.) ( $T_j=25^\circ C$ )

## MAXIMUM RATINGS

CHARACTERISTIC	SYMBOL	RATING	UNIT
Repetitive Peak Reverse Voltage	$V_{RRM}$	2700	V
Non-Repetitive Peak Reverse Voltage (Non-Repetitive $\leq 5ms$ , $T_j=0\sim 125^\circ C$ )	$V_{RSM}$	2800	V
Average Forward Current	$I_F(AV)$	500	A
Peak One Cycle Surge Forward Current	$I_{FSM}$	10000 (50Hz) 11000 (60Hz)	A
Junction Temperature Range	$T_j$	$-40\sim 125$	$^\circ C$
Storage Temperature Range	$T_{stg}$	$-40\sim 125$	$^\circ C$
Mounting Force	—	$14.7 \pm 1.5$	kN



Weight : 220g

## ELECTRICAL CHARACTERISTICS

CHARACTERISTIC	SYMBOL	TEST CONDITION		MIN.	MAX.	UNIT
Repetitive Peak Reverse Current	I <sub>RRM</sub>	V <sub>RRM</sub> =2500V, T <sub>j</sub> =125°C		—	100	mA
Peak Forward Voltage	V <sub>FM</sub>	I <sub>FM</sub> =1500A, T <sub>j</sub> =25°C		—	2.0	V
Reverse Recovery Time	t <sub>rr</sub>	I <sub>F</sub> =500A	T <sub>j</sub> =25°C	—	5.0	μs
		di <sub>F</sub> / dt = 100A / μs	T <sub>j</sub> =125°C	—	6.0	
Thermal Resistance (Junction to Fin)	R <sub>th</sub> (j-f)	DC		—	0.04	°C / W

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