

TOSHIBA FAST RECOVERY DIODE SILICON DIFFUSED TYPE

500EXH22

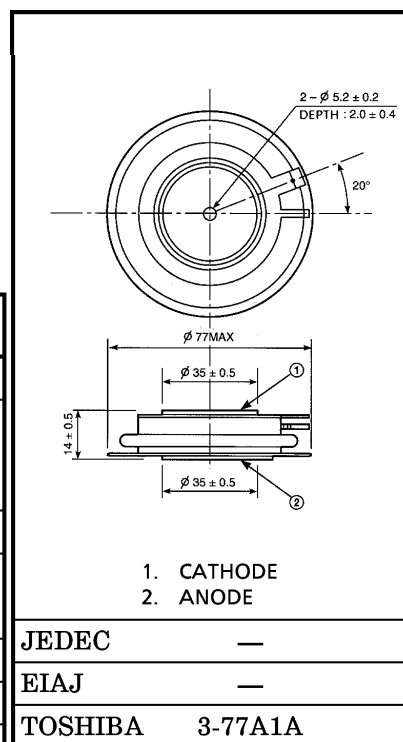
HIGH SPEED RECTIFIER APPLICATIONS

Unit in mm

- Repetitive Peak Reverse Voltage : $V_{RRM}=2500V$
- 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}	2500	V
Non-Repetitive Peak Reverse Voltage (Non-Repetitive $\leq 5ms$, $T_j=0\sim 125^\circ C$)	V_{RSM}	2600	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 ± 1.5	kN



Weight : 220g

ELECTRICAL CHARACTERISTICS

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	MAX.	UNIT
Repetitive Peak Reverse Current	I_{RRM}	$V_{RRM}=2500V$, $T_j=125^\circ C$	—	100	mA
Peak Forward Voltage	V_{FM}	$I_{FM}=1500A$, $T_j=25^\circ C$	—	2.0	V
Reverse Recovery Time	t_{rr}	$I_F=500A$ $di_F/dt=100A/\mu s$	$T_j=25^\circ C$: — $T_j=125^\circ C$: —	5.0 6.0	μs
Thermal Resistance (Junction to Fin)	$R_{th(j-f)}$	DC	—	0.04	$^\circ C/W$

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