

TOSHIBA FAST RECOVERY DIODE SILICON DIFFUSED TYPE

300EXH22

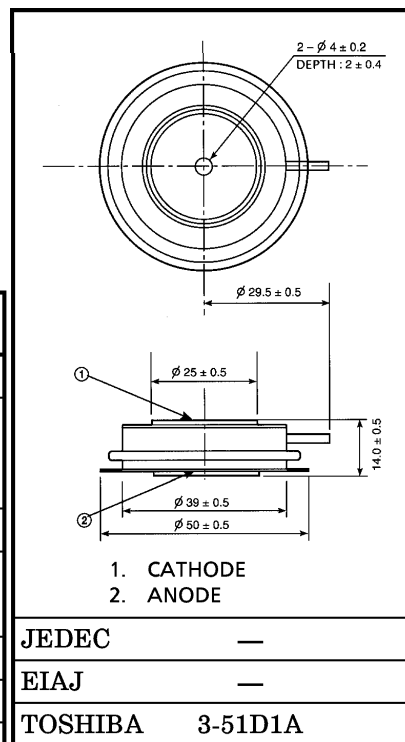
HIGH SPEED RECTIFIER APPLICATIONS

Unit in mm

- Repetitive Peak Reverse Voltage : $V_{RRM}=2500V$
- Average Forward Current : $I_F(AV)=300A$
- 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	$I_F(AV)$	300	A
Peak One Cycle Surge Forward Current	I_{FSM}	6000 (50Hz) 6600 (60Hz)	A
Junction Temperature Range	T_j	-40~125	$^\circ C$
Storage Temperature Range	T_{stg}	-40~125	$^\circ C$
Mounting Force	—	10.8 ± 1.0	kN



ELECTRICAL CHARACTERISTICS

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	MAX.	UNIT	
Repetitive Peak Reverse Current	I_{RRM}	$V_{RRM}=2500V, T_j=125^\circ C$	—	50	mA	
Peak Forward Voltage	V_{RM}	$I_{FM}=1000A, T_j=25^\circ C$	—	1.75	V	
Reverse Recovery Time	t_{rr}	$I_F=300A$ $di_F/dt=50A/\mu s$	$T_j=25^\circ C$	—	5.0	μs
			$T_j=125^\circ C$	—	7.0	
Thermal Resistance (Junction to Fin)	$R_{th(j-f)}$	DC	—	0.05	$^\circ C/W$	

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