

TOSHIBA

300EXH22

TOSHIBA FAST RECOVERY DIODE SILICON DIFFUSED TYPE

300EXH22

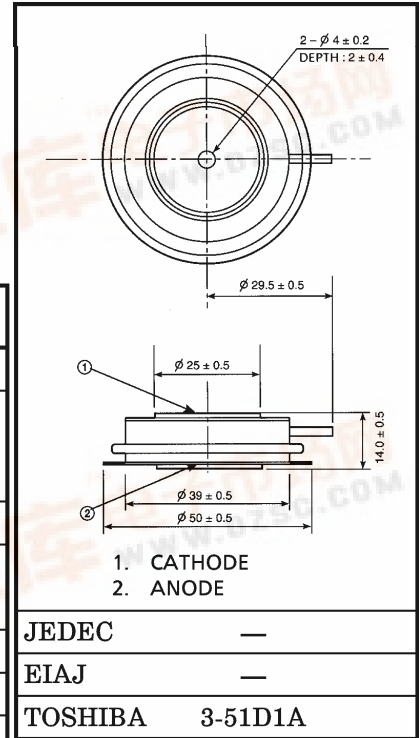
HIGH SPEED RECTIFIER APPLICATIONS

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 \pm 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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