

TOSHIBA SUPER FAST RECOVERY RECTIFIER SILICON DIFFUSED TYPE

# 3GU41

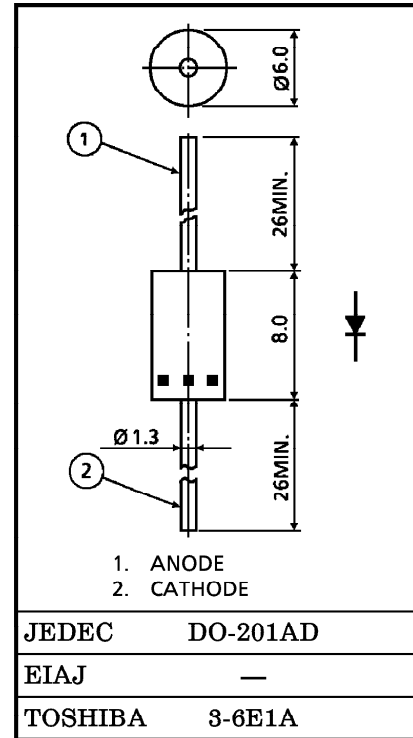
SWITCHING TYPE POWER SUPPLY APPLICATIONS

Unit in mm

- Repetitive Peak Reverse Voltage :  $V_{RRM}=100\sim 400V$
- Average Forward Current :  $I_F(AV)=3.0A$
- Very Fast Reverse-Recovery Time :  $t_{rr}=100ns$

**MAXIMUM RATINGS**

CHARACTERISTIC	SYMBOL	RATING	UNIT
Repetitive Peak Reverse Voltage	$V_{RRM}$	400	V
Average Forward Current	$I_F(AV)$	3.0	A
Peak One Cycle Surge Forward Current (Non-Repetitive)	$I_{FSM}$	80 (50Hz)	A
		88 (60Hz)	
Junction Temperature	$T_j$	-40~150	°C
Storage Temperature Range	$T_{stg}$	-40~150	°C

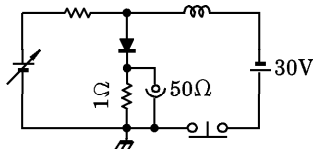


Weight : 1.18g

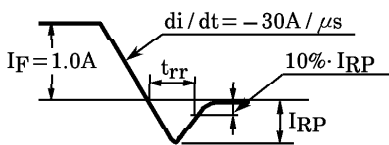
**ELECTRICAL CHARACTERISTICS (Ta = 25°C)**

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Peak Forward Voltage	$V_{FM}$	$I_{FM}=3.0A$	—	—	1.5	V
Repetitive Peak Reverse Current	$I_{RRM}$	$V_{RRM}=400V$	—	—	300	$\mu A$
Reverse Recovery Time (Note 1)	$t_{rr}$	$I_F=1A, di/dt = -30A/\mu s$	—	—	100	ns
Forward Recovery Time (Note 2)	$t_{fr}$	$I_F=1.0A$	—	—	200	ns
Thermal Resistance (Note 3)	$R_{th(j-a)}$	Junction to Ambient	—	—	37	°C/W
Thermal Resistance (Note 4)	$R_{th(j-l)}$	Junction to Lead	—	—	12	°C/W

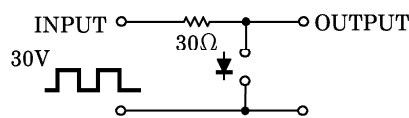
Note 1 :  $t_{rr}$  TEST CIRCUIT



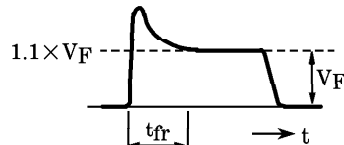
WAVEFORM



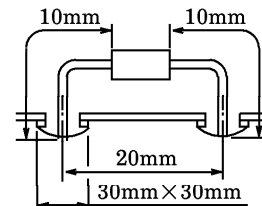
Note 2 :  $t_{fr}$  TEST CIRCUIT



WAVEFORM

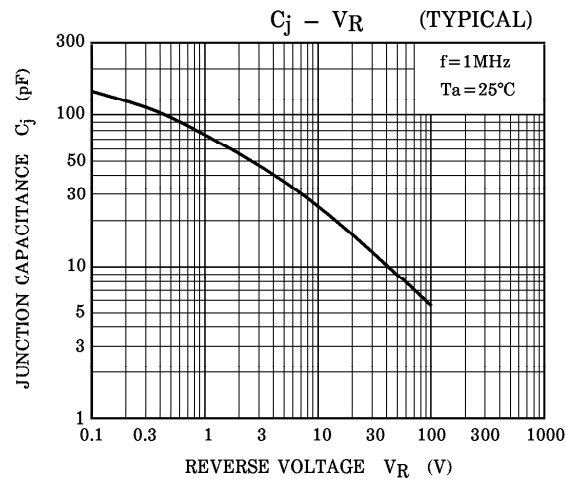
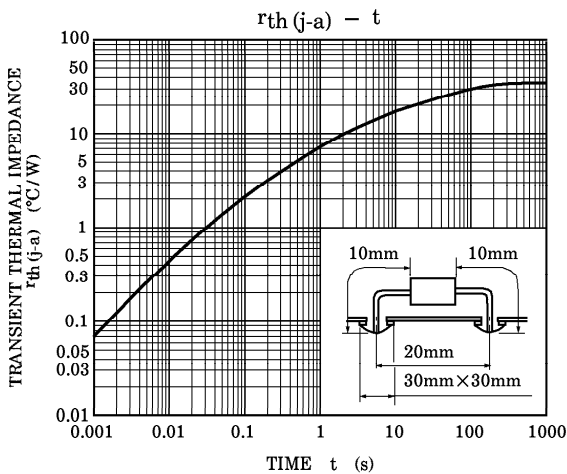
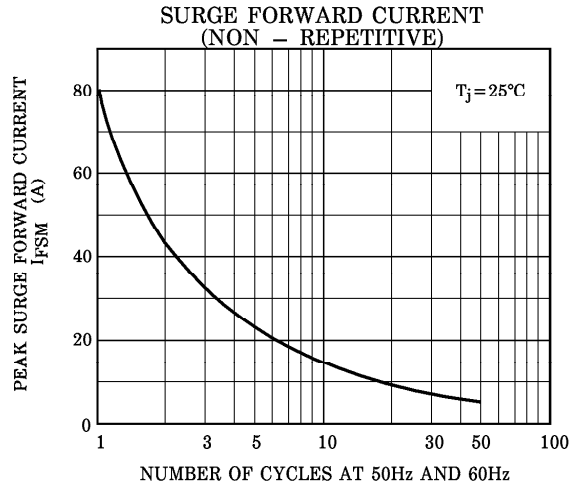
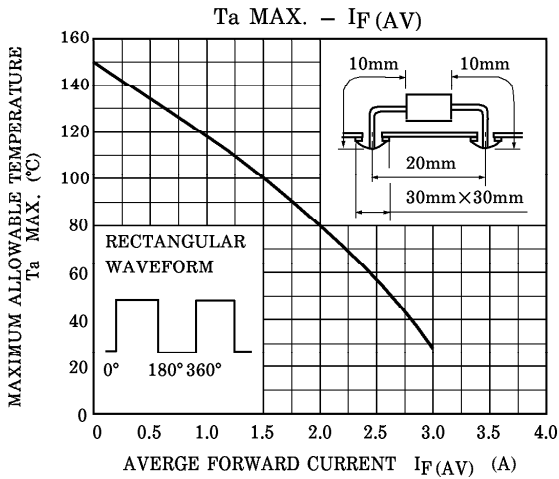
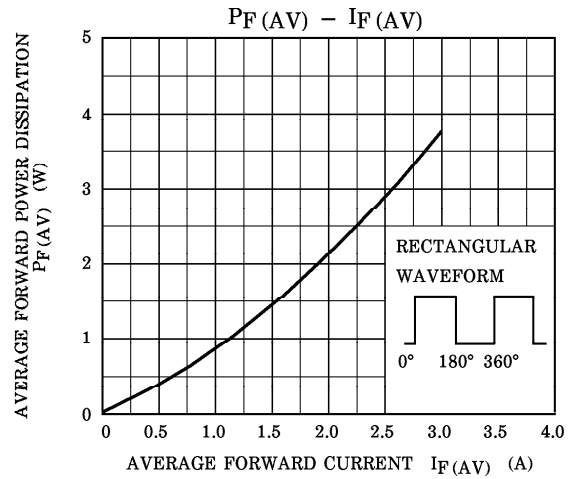
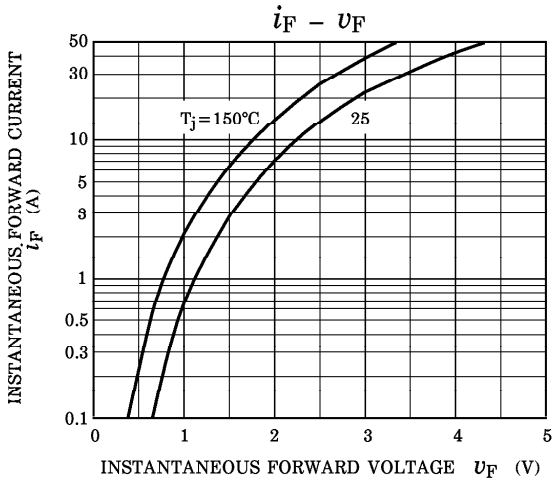


Note 3 : THERMAL RESISTANCE



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