TOSHIBA RECTIFIER SILICON DIFFUSED TYPE

3JU41

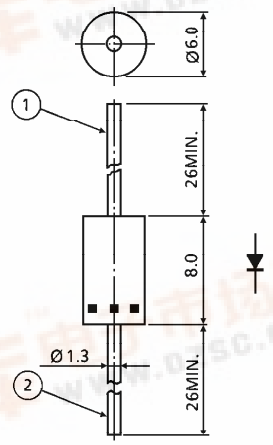
HIGH SPEED RECTIFIER APPLICATIONS
(FAST RECOVERY)

- Average Forward Current : $I_{F(AV)}$=3.0V
- Repetitive Peak Reverse Voltage : V_{RRM}=600V
- Reverse Recovery Time : t_{rr}=100ns (Max.)
- Plastic Mold Type.

MAXIMUM RATINGS

CHARACTERISTIC	SYMBOL	RATING	UNIT
Repetitive Peak Reverse Voltage	V_{RRM}	600	V
Average Forward Current	$I_{F(AV)}$	3.0	A
Peak One Cycle Surge Forward Current (Non-Repetitive)	I_{FSM}	50 (50Hz)	A
		55 (60Hz)	
Junction Temperature	T_j	−40~150	°C
Storage Temperature Range	T_{stg}	−40~150	°C

Unit in mm

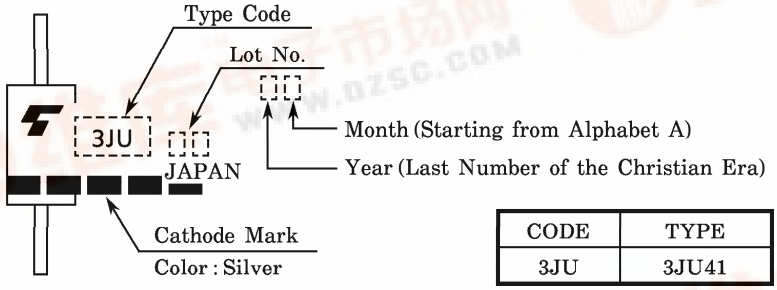


1. ANODE
2. CATHODE

JEDEC	DO-201AD
EIAJ	—
TOSHIBA	3-6E1A

Weight : 1.18g

Marking



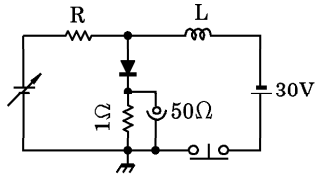
CODE	TYPE
3JU	3JU41

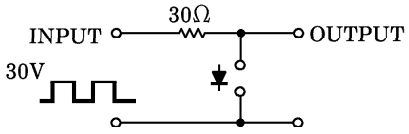
961001EAA2

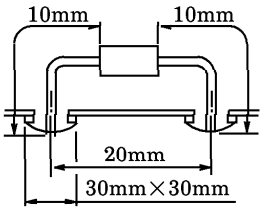
ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Peak Forward Voltage	V_{FM}	I_{FM} = 3.0A	—	—	2.0	V
Repetitive Peak Reverse Current	I_{RRM}	V_{RRM} = 600V	—	—	100	μA
Reverse Recovery Time (Note 1)	t_{rr}	I_F = 1A, di / dt = −30A / μs	—	—	100	ns
Forward Recovery Time (Note 2)	t_{fr}	I_F = 1.0A	—	—	250	ns
Thermal Resistance (Note 3)	$R_{th\,(j\text{-}a)}$	Junction to Ambient	—	—	41	°C / W
Thermal Resistance (Note 3)	$R_{th\,(j\text{-}\ell)}$	Junction to Lead	—	—	7	°C / W

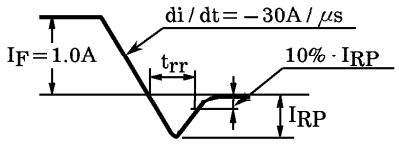
Note 1 : t_{rr} TEST CIRCUIT Note 2 : t_{fr} TEST CIRCUIT Note 3 : THERMAL RESISTANCE



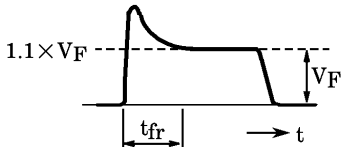




WAVEFORM

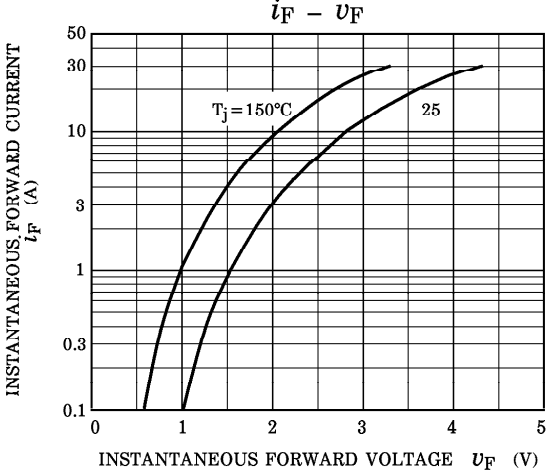


WAVEFORM

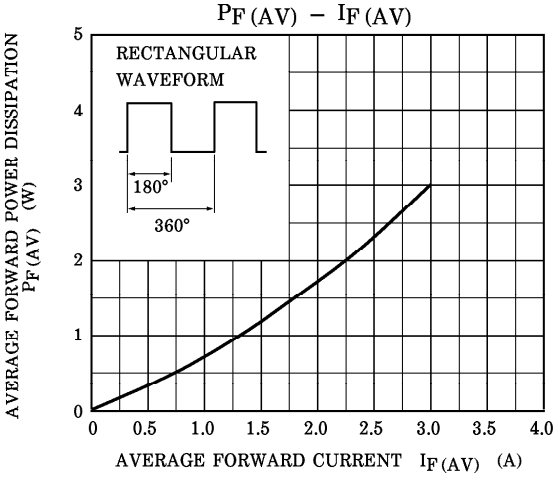


961001EAA2'

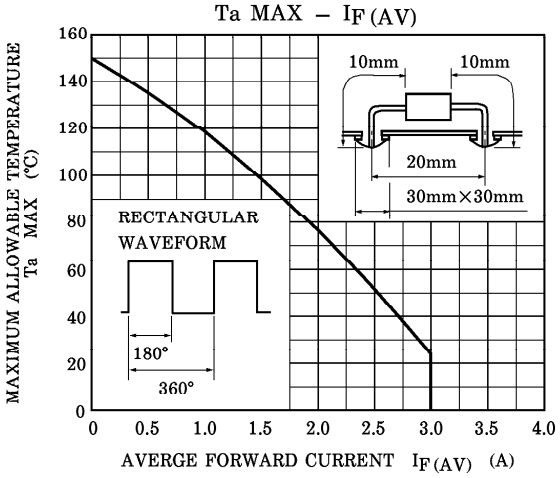
$i_F - v_F$



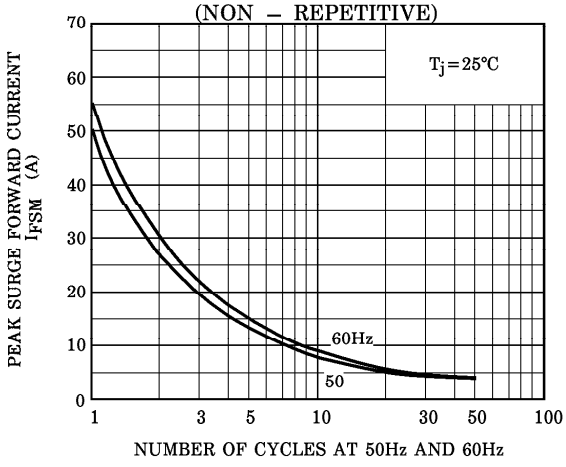
$P_{F(AV)} - I_{F(AV)}$



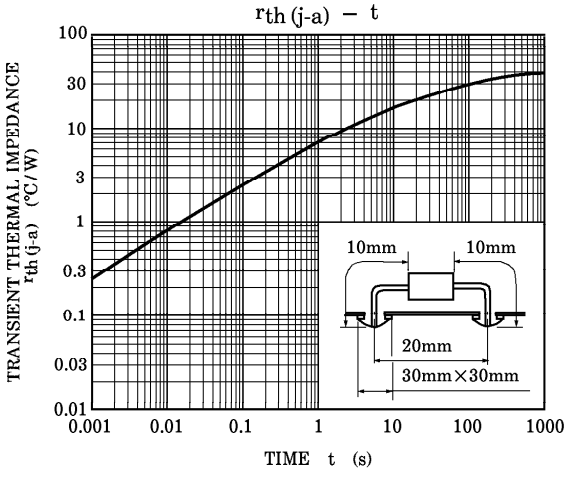
Ta MAX – $I_{F(AV)}$



SURGE FORWARD CURRENT (NON – REPETITIVE)



$r_{th(j-a)} - t$



$C_j - V_R$ (TYPICAL)