**TOSHIBA** 

# TOSHIBA DIODE SILICON EPITAXIAL PLANAR TYPE

# 1 S S 2 2 6

#### ULTRA HIGH SPEED SWITCHING APPLICATION.

• Small Package : SC-59

• Low Forward Voltage : V<sub>F(3)</sub>=0.9V (Typ.)

• Fast Reverse Recovery Time :  $t_{rr} = 1.6ns$  (Typ.)

• Small Total Capacitance : C<sub>T</sub>=0.9pF (Typ.)

## MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT	
Maximum (Peak) Reverse Voltage	$v_{RM}$	85	V	
Reverse Voltage	$V_{\mathbf{R}}$	80	V	
Maximum (Peak) Forward Current	$I_{FM}$	300 (*)	mA	
Average Forward Current	IO	100 (*)	mA	
Surge Current (10ms)	$I_{FSM}$	2 (*)	Α	
Power Dissipation	P	150	mW	
Junction Temperature	$T_{j}$	125	°C	
Storage Temperature Range	$\mathrm{T_{stg}}$	-55~125	°C	

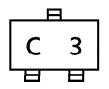
Weight: 0.012g

## (\*) Unit Rating. Total Rating=Unit Rating×0.7.

## ELECTRICAL CHARACTERISTICS (Ta = 25°C)

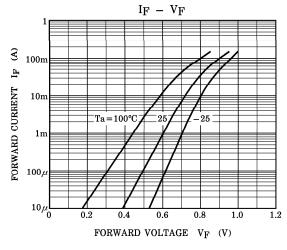
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Forward Voltage	V <sub>F(1)</sub>	I <sub>F</sub> =1mA	_	0.60	_	V
	$V_{F(2)}$	$I_{\mathbf{F}} = 10 \text{mA}$	_	0.72	_	
	$V_{F(3)}$	$I_{ m F}\!=\!100{ m mA}$		0.90	1.20	
Reverse Current	I <sub>R (1)</sub>	$V_R = 30V$	_	_	0.1	$\mu$ <b>A</b>
	$I_{R(2)}$	$V_R = 80V$	_	_	0.5	
Total Capacitance	$\mathrm{C}_{\mathrm{T}}$	$V_R=0$ , f=1MHz	_	0.9	3.0	pF
Reverse Recovery Time	$t_{rr}$	I <sub>F</sub> =10mA (Fig.1)	_	1.6	4.0	ns

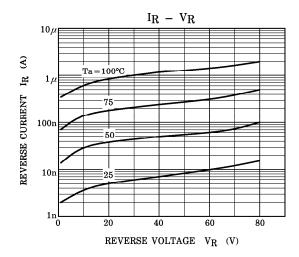
## **MARKING**

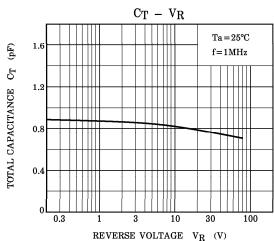


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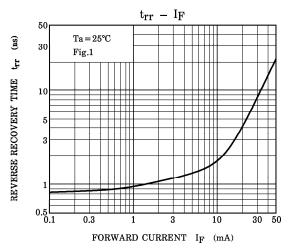
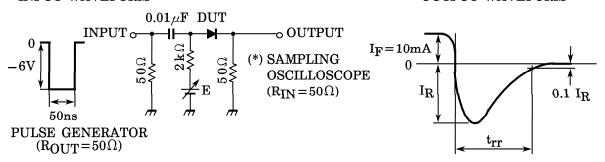


Fig.1 Reverse recovery time (t<sub>rr</sub>) test circuit

#### INPUT WAVEFORM

#### **OUTPUT WAVEFORM**



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