TOSHIBA DIODE SILICON EPITAXIAL PLANAR TYPE

155196

ULTRA HIGH SPEED SWITCHING APPLICATION.

• Small Package : SC-59

• Low Forward Voltage : V_{F(3)}=0.9V (Typ.)

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

• Small Total Capacitance : $C_T = 0.9 pF$ (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	$ m 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	$ m T_{stg}$	-55~125	°C	

1-3G1A

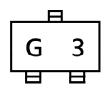
Weight: 0.012g

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ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
	DIMBOL	TEST CONDITION	141111.	111.	1417171.	01111
Forward Voltage	$V_{F(1)}$	$I_F = 1 \text{mA}$	_	0.60	_	V
	$V_{F(2)}$	$I_{\mathbf{F}} = 10 \text{mA}$		0.72		
	$V_{F(3)}$	$I_{ m F}$ = 100mA	_	0.90	1.20	
Reverse Current $ \frac{I_{R(1)}}{I_{R(2)}} $	I _{R (1)}	$V_R = 30V$	_	_	0.1	μ A
	I _{R (2)}	$V_R = 80V$	_	_	0.5	
Total Capacitance	$\mathrm{C}_{\mathbf{T}}$	$V_R=0$, f=1MHz		0.9	3.0	pF
Reverse Recovery Time	t_{rr}	I _F =10mA (Fig.1)		1.6	4.0	ns

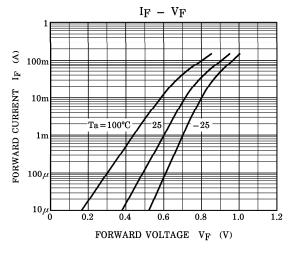
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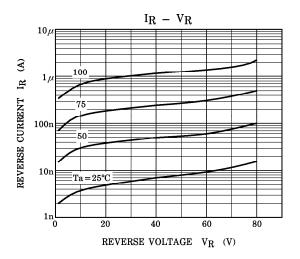


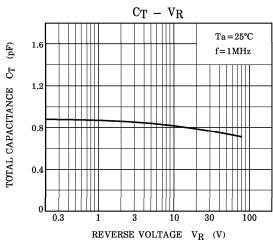
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TOSHIBA 1SS196







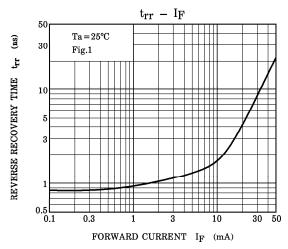
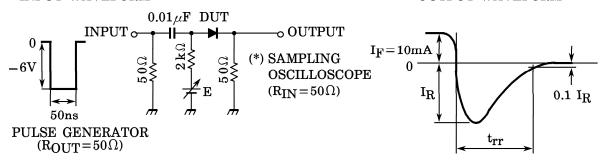


Fig.1 Reverse recovery time (t_{rr}) test circuit

INPUT WAVEFORM

OUTPUT WAVEFORM



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