TOSHIBA

TOSHIBA DIODE SILICON EPITAXIAL PLANAR TYPE

155187

ULTRA HIGH SPEED SWITCHING APPLICATION.

• Small Package : SC-59

• Low Forward Voltage : V_{F(3)}=0.92V (Typ.)

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

• Small Total Capacitance : C_T=2.2pF (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
Storage Temperature Range	${ m T_{stg}}$	-55~125	°C

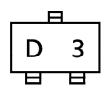
Unit in mm | 1. CATHODE | 2. N.C. | 3. ANODE | JEDEC | TO-236MOD | EIAJ | SC-59 | TOSHIBA | 1-3G1D

Weight: 0.012g

ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Forward Voltage	$v_{F(1)}$	I _F =1mA	_	0.61	_	
	V _{F (2)}	$I_{\mathbf{F}} = 10 \text{mA}$	_	0.74		v
	$V_{F(3)}$	$I_{ m F} = 100 { m mA}$		0.92	1.20	
Reverse Current	I _{R (1)}	$V_R = 30V$	_	_	0.1	μ A
	I _{R (2)}	$V_R = 80V$	_	_	0.5	
Total Capacitance	C_{T}	$V_R=0$, f=1MHz	_	2.2	4.0	рF
Reverse Recovery Time	t_{rr}	I _F =10mA (Fig.1)	_	1.6	4.0	ns

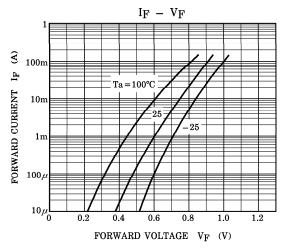
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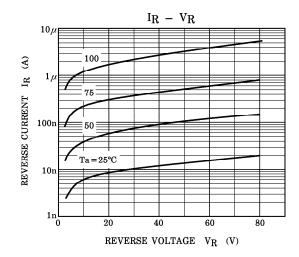


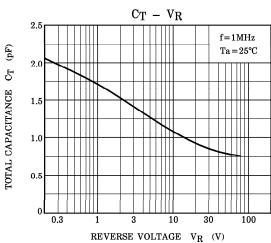
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TOSHIBA 1SS187







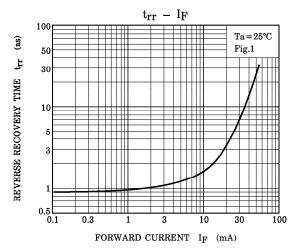
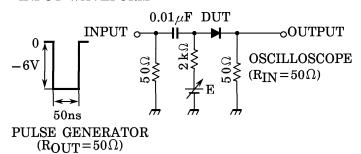
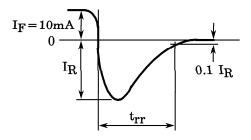


Fig.1 Reverse recovery time (t_{rr}) test circuit

INPUT WAVEFORM

OUTPUT WAVEFORM





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