

TOSHIBA Diode Silicon Epitaxial Planar Type

1SS362

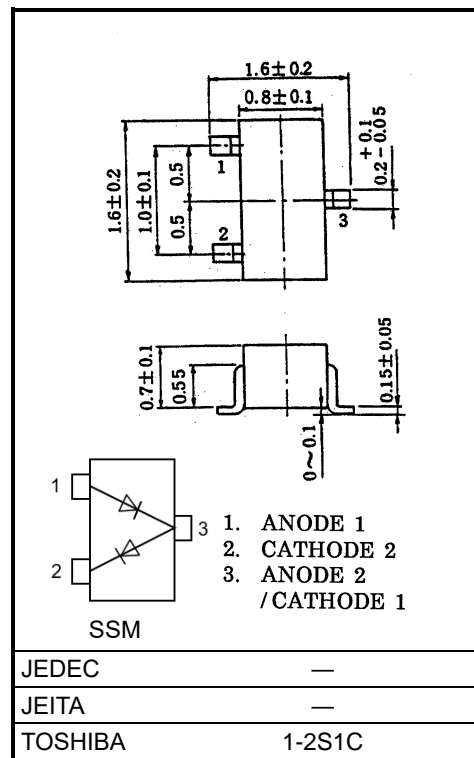
Unit: mm

Ultra High Speed Switching Application

- Small package
- Low forward voltage : $V_F(3) = 0.97 \text{ V (typ.)}$
- Fast reverse recovery time: $t_{rr} = 1.6 \text{ ns (typ.)}$
- Small total capacitance : $C_T = 0.5 \text{ pF (typ.)}$

Absolute Maximum Ratings (Ta = 25°C)

Characteristic	Symbol	Rating	Unit
Maximum (peak) reverse voltage	V_{RM}	85	V
Reverse voltage	V_R	80	V
Maximum (peak) forward current	I_{FM}	240 *	mA
Average forward current	I_O	80 *	mA
Surge current (10ms)	I_{FSM}	1 *	A
Power dissipation	P_D (Note 1, 3)	120	mW
	P_D (Note 2)	100	
Junction temperature	T_j (Note 1)	150	°C
	T_j (Note 2)	125	
Storage temperature	T_{stg} (Note 1)	-55 to 150	°C
	T_{stg} (Note 2)	-55 to 125	



Weight: 2.4 mg (typ.)

Note: Using continuously under heavy loads (e.g. the application of high temperature/current/voltage and the significant change in temperature, etc.) may cause this product to decrease in the reliability significantly even if the operating conditions (i.e. operating temperature/current/voltage, etc.) are within the absolute maximum ratings.

Please design the appropriate reliability upon reviewing the Toshiba Semiconductor Reliability Handbook ("Handling Precautions"/"Derating Concept and Methods") and individual reliability data (i.e. reliability test report and estimated failure rate, etc.).

Note 1: For devices with the ordering part number ending in (TE85L,F).

Note 2: For devices with the ordering part number in other than (TE85L,F).

Note 3: Mounted on a FR4 board. (25.4 mm × 25.4 mm × 1.6 mm, Cu pad: 0.36 mm² × 3)

*: Unit rating. Total rating = Unit rating × 1.5.

Electrical Characteristics (Ta = 25°C)

Characteristic	Symbol	Test Condition	Min	Typ.	Max	Unit
Forward voltage	V_F (1)	$I_F = 1 \text{ mA}$	—	0.63	—	V
	V_F (2)	$I_F = 10 \text{ mA}$	—	0.75	—	
	V_F (3)	$I_F = 100 \text{ mA}$	—	0.97	1.20	
Reverse current	I_R (1)	$V_R = 30 \text{ V}$	—	—	0.1	μA
	I_R (2)	$V_R = 80 \text{ V}$	—	—	0.5	
Total capacitance	C_T	$V_R = 0 \text{ V}, f = 1 \text{ MHz}$	—	0.5	3.0	pF
Reverse recovery time	t_{rr}	$I_F = 10 \text{ mA}, \text{ Fig.1}$	—	1.6	4.0	ns

Start of commercial production
1990-10

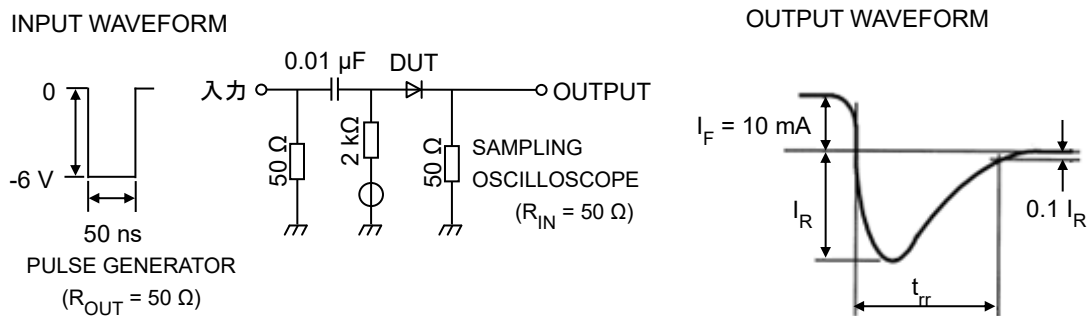
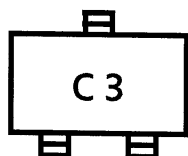
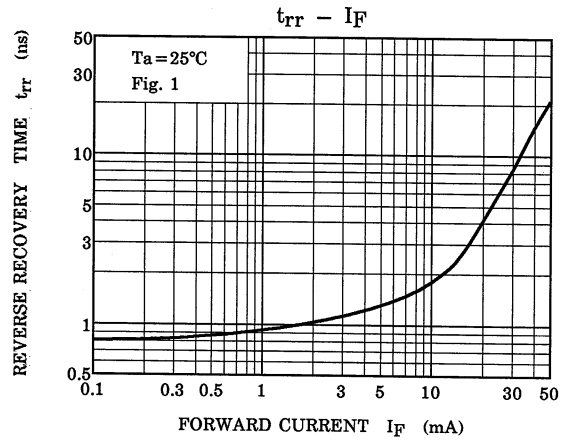
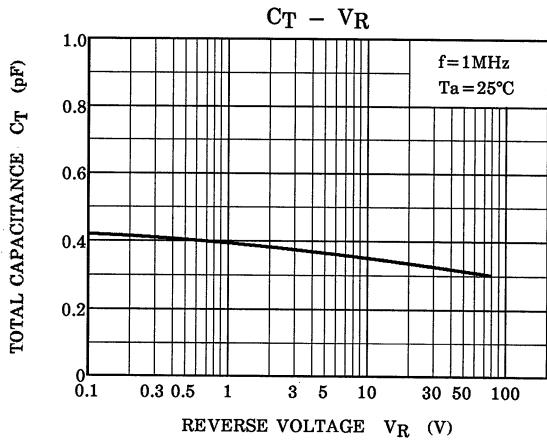
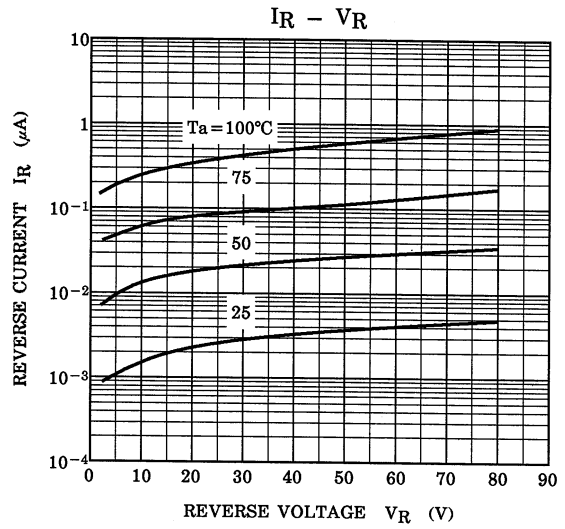
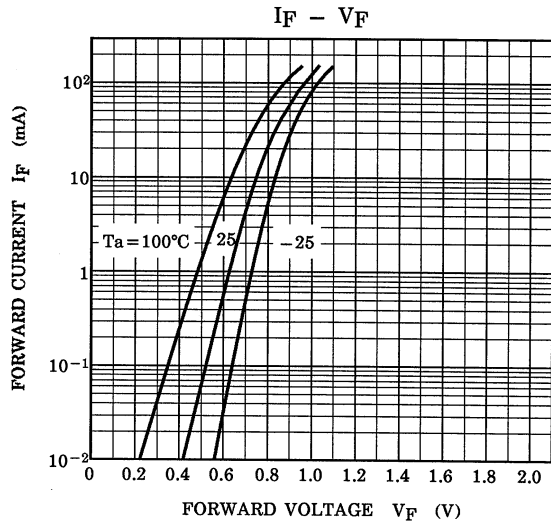


Fig.1 Reverse Recovery Time (t_{rr}) Test Circuit

Marking



Characteristics Curves



The above characteristics curves are presented for reference only and not guaranteed by production test, unless otherwise noted.

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