TOSHIBA Diode Silicon Epitaxial Planar Type

1SS272

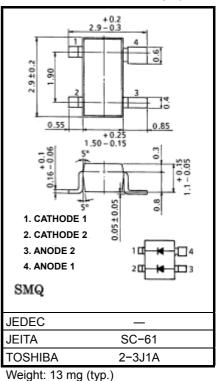
Ultra High Speed Switching Application

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- Low forward voltage $: V_{F(3)} = 0.92V (typ.)$
- Fast reverse recovery time: t_{rr} = 1.6ns (typ.)
- Small total capacitance $: C_T = 0.9 pF (typ.)$

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}	300 *	mA	
Average forward current	Ι _Ο	100 *	mA	
Surge current (10ms)	I _{FSM}	2 *	А	
Power dissipation	Р	150 *	mW	
Junction temperature	Tj	125	°C	
Storage temperature range	T _{stg}	-55 to 125	°C	



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).

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

Characteristic	Symbol	Test Condition	Min	Тур.	Max	Unit
Forward voltage	V _{F (1)}	I _F = 1mA	_	0.61		v
	V _{F (2)}	I _F = 10mA	_	0.74	_	
	V _{F (3)}	I _F = 100mA	_	0.92	1.2	
Reverse current	I _{R (1)}	V _R = 30V	_		0.1	μΑ
	I _{R (2)}	V _R = 80V	_		0.5	
Total capacitance	CT	V _R = 0, f = 1MH _z	_	0.9	2.0	pF
Reverse recovery time	t _{rr}	I _F = 10mA, Fig.1	_	1.6	4.0	ns

Electrical Characteristics (Ta = 25°C)

2014-03-01

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Marking

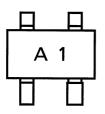
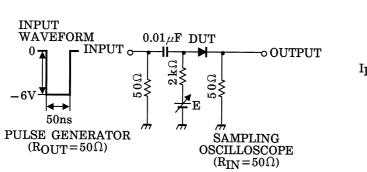
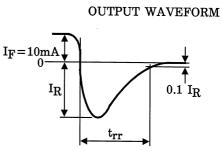
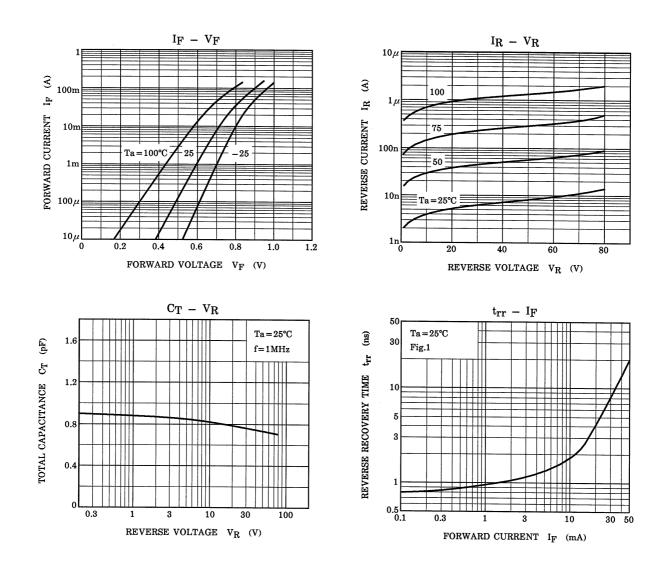


Fig.1 Reverse recovery time (t_{rr}) test circuit





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