TOSHIBA Diode Silicon Epitaxial Planar Type

1SS272

Ultra High Speed Switching Application

- Small package : SC-61
- 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}	-55~125	°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.

Electrical Characteristics (Ta = 25°C)

Characteristic	Symbol	Test Circuit	Test Condition	Min	Тур.	Max	Unit	
Forward voltage	V _{F (1)}	_	I _F = 1mA		0.61	-		
	V _{F (2)}	—	I _F = 10mA		0.74		V	
	V _{F (3)}	_	I _F = 100mA		0.92	1.20		
Reverse current	I _{R (1)}	_	V _R = 30V			0.1		
	I _{R (2)}	—	V _R = 80V			0.5	μΛ	
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	

Marking



Unit: mm

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



OUTPUT WAVEFORM



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