Unit in mm

TOSHIBA Diode Silicon Epitaxial Planar Type

1SS403

High Voltage Switching Applications

• Two-pin small packages are suitable for higher mounting densities.

Excellent in forward current and forward voltage characteristics : V_{F (2)} = 0.90V (typ.)
 Fast reverse recovery time : t_{rr} = 60ns (typ.)
 Small total capacitance : C_T = 1.5pF (typ.)

Absolute Maximum Ratings (Ta = 25°C)

Characteristic	Symbol	Rating	Unit
Maximum (peak) reverse voltage	V_{RM}	250	V
Reverse voltage	V _R	200	V
Maximum (peak) forward current	I _{FM}	300	mA
Average forward current	Io	100	mA
Surge current (10ms)	I _{FSM}	2	Α
Power dissipation	Р	200 *	mW
Junction temperature	Tj	125	°C
Storage temperature range	T _{stg}	-55~125	°C

JEDEC —

JEITA —

TOSHIBA 1-1E1A

Weight: 0.0045g (typ.)

Note: Using continuously under heavy loads (e.g. the application of high temperature/current/voltage and the significant change in

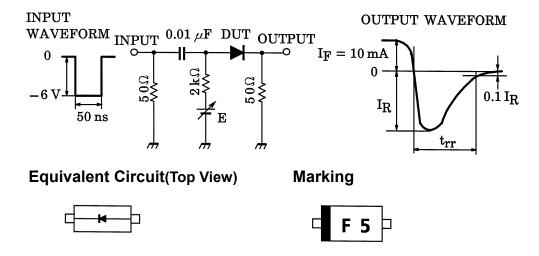
temperature, etc.) may cause this product to decrease in the reliability significantly even if the operating conditions (i.e. operating temperature/current/voltage, etc.) are within the absolute maximum ratings. Please design the appropriate reliability upon reviewing the Toshiba Semiconductor Reliability Handbook ("Handling Precautions"/"Derating Concept and Methods") and individual reliability data (i.e. reliability test report and estimated failure rate, etc).

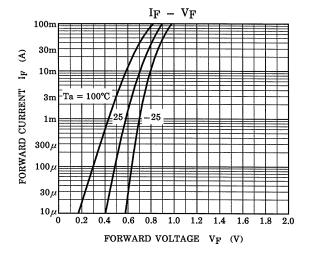
*: When mounted on a glass epoxy board PCB: 20 mm × 20 mm, with copper pad 4 mm × 4 mm.

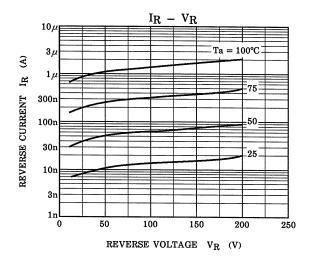
Electrical Characteristics (Ta = 25°C)

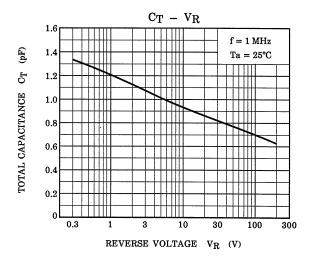
Characteristic	Symbol	Test Circuit	Test Condition	Min	Тур.	Max	Unit
Forward voltage	V _{F (1)}	-	I _F = 10mA	-	0.72	1.0	V
	V _{F (2)}	_	I _F = 100mA	_	0.90	1.2	
Reverse current	I _{R (1)}	_	V _R = 50V	_	_	0.1	μА
	I _{R (2)}	_	V _R = 200V	_	_	1.0	
Total capacitance	C _T	_	V _R = 0, f = 1MHz	_	1.5	3.0	pF
Reverse recovery time	t _{rr}	_	I _F = 10mA (Fig. 1)	_	10	60	ns

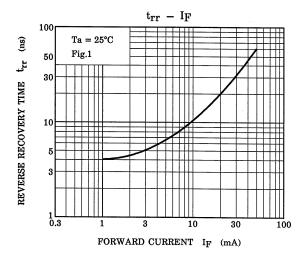
Fig.1 Reverse Recovery Time (t_{rr}) Test Circuit











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