Unit: mm

TOSHIBA Diode Silicon Epitaxial Schottky Barrier Type

1SS405

High Speed Switching Application

Low forward voltage : V_{F (3)} = 0.50V (typ.)
 Low reverse current : I_R= 0.5µA (max)
 Small total capacitance : C_T = 3.9pF (typ.)

Absolute Maximum Ratings (Ta = 25°C)

Characteristic	Symbol	Rating	Unit
Maximum (peak) reverse Voltage	V_{RM}	25	V
Reverse voltage	V _R	20	V
Maximum (peak) forward current	I _{FM}	100	mA
Average forward current	I _O	50	mA
Surge current (10ms)	I _{FSM}	1	Α
Power dissipation	P*	150	mW
Junction temperature	Tj	125	°C
Storage temperature range	T _{stg}	-55 to 125	°C

ESC

JEDEC —

JEITA —

TOSHIBA 1-1G1A

Weight: 1.4mg(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).

*: Mounted on a glass epoxy circuit board of 20 × 20 mm, pad dimension of 4 × 4 mm.

Electrical Characteristics (Ta = 25°C)

Characteristic	Symbol	Test Circuit	Test Condition	Min	Тур.	Max	Unit
Forward voltage	V _{F (1)}	_	I _F = 1mA	_	0.33	-	
	V _{F (2)}	_	I _F = 5mA	_	0.38	-	V
	V _{F (3)}	_	I _F = 50mA	_	0.50	0.55	
Reverse current	I _R	_	V _R = 20V	_	_	0.5	μA
Total capacitance	C _T	_	V _R = 0, f = 1MH _z		3.9	_	pF

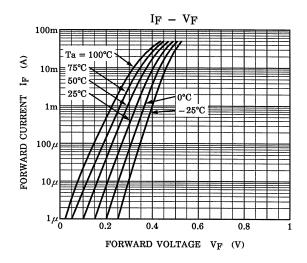
Equivalent Circuit (Top View)

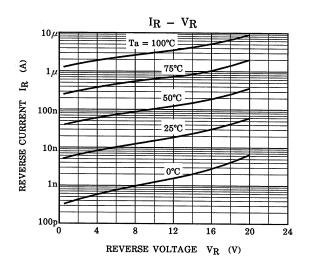


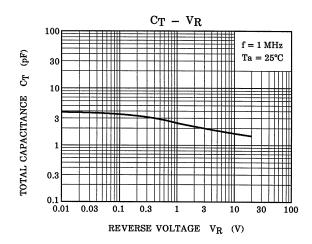


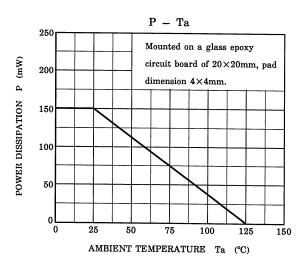


Start of commercial production 2001-09









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