Unit: mm

TOSHIBA Diode Silicon Epitaxial Schottky Barrier Type

1SS424

High-Speed Switching Applications

• Low forward voltage : V_{F (3)} = 0.50 V (typ.)

Absolute Maximum Ratings (Ta = 25°C)

Characteristic	Symbol	Rating	Unit
Maximum (peak) reverse voltage	V_{RM}	30	V
Reverse voltage	V _R	20	V
Maximum (peak) forward current	I _{FM}	300	mA
Average forward current	Io	200	mA
Surge current (10 ms)	I _{FSM}	1	Α
Power dissipation	P *	150	mW
Junction temperature	Tj	125	°C
Storage temperature range	T _{stg}	-55 to 125	°C
Operating temperature range	T _{opr}	-40 to 100	°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

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Weight: 1.4 mg (typ.)

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 dimensions 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 = 1 mA	_	0.18	_	V	
	V _{F (2)}	_	I _F = 5 mA	_	0.23	_		
	V _{F (3)}	_	I _F = 200 mA	_	0.42	0.5		
Reverse current	I _{R (1)}	_	V _R = 10 V	_	_	30	μA	
	I _{R (2)}	_	V _R = 20 V	_	_	50		
Total capacitance	C _T	_	V _R = 0, f = 1 MHz	_	20	_	pF	

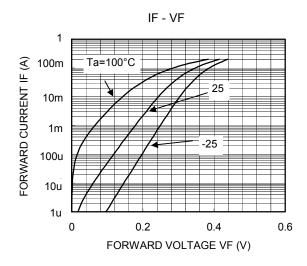
Equivalent Circuit (Top View)

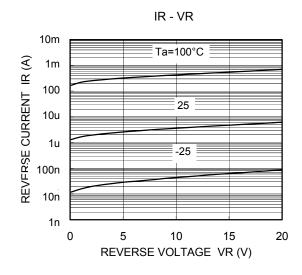
Marking

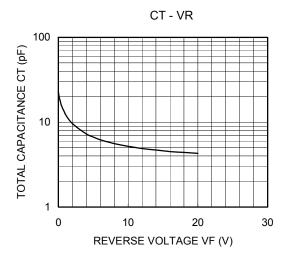


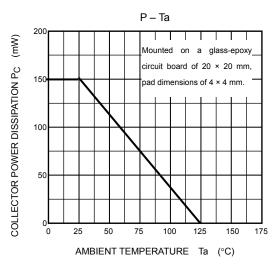


Start of commercial production 2004-08









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