

TOSHIBA Diode Silicon Epitaxial Schottky Barrier Type

# 1SS422

## High-Speed Switching Applications

Low forward voltage  $V_F = 0.23 \text{ V (typ.)@}I_F = 5 \text{ mA}$

- Small package suitable for mounting on a small space

## Absolute Maximum Ratings (Ta = 25°C)

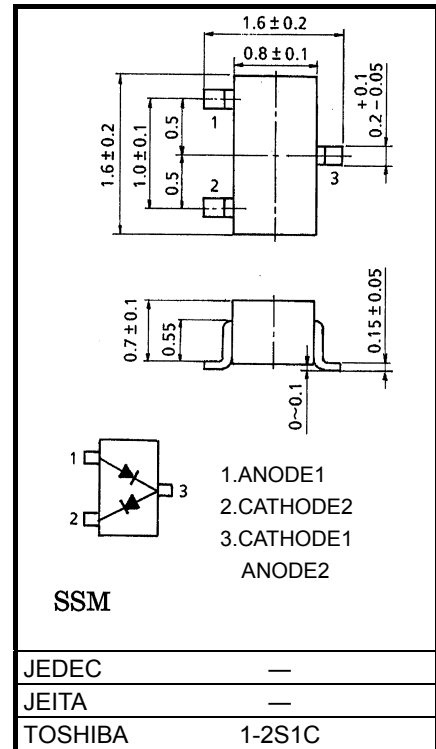
Characteristic	Symbol	Rating	Unit
Maximum (peak) reverse voltage	$V_{RM}$	35	V
Reverse voltage	$V_R$	30	V
Maximum (peak) forward current	$I_{FM}$	200*	mA
Average forward current	$I_O$	100*	mA
Surge current (10 ms)	$I_{FSM}$	1*	A
Power dissipation	P	100*	mW
Junction temperature	$T_j$	125	°C
Storage temperature range	$T_{stg}$	-55~125	°C
Operating temperature range	$T_{opr}$	-40~100	°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 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).

\*: This is the absolute maximum rating for a single diode . Where two diodes are used, the absolute maximum rating per diode is 75% that for the single diode.

Unit: mm

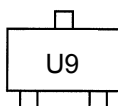


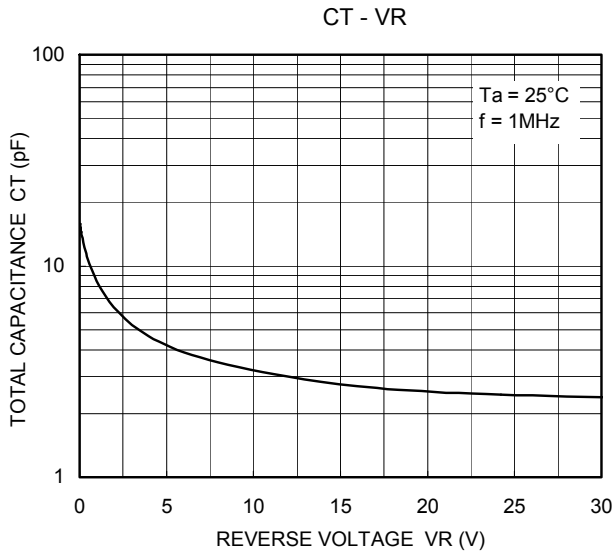
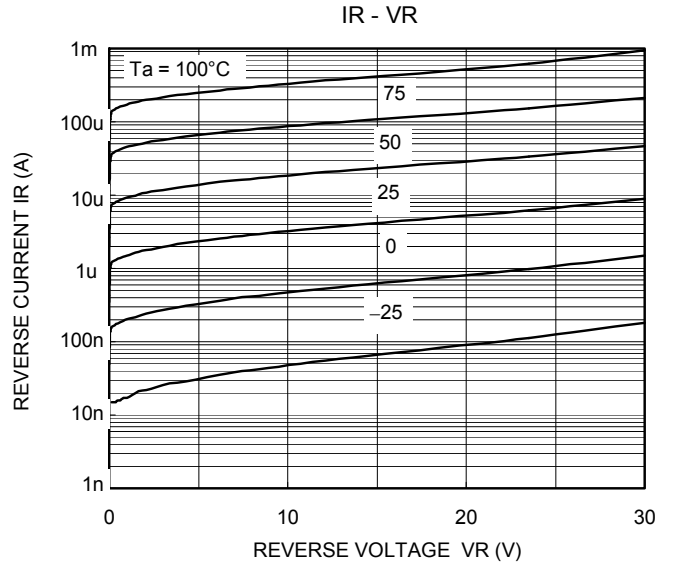
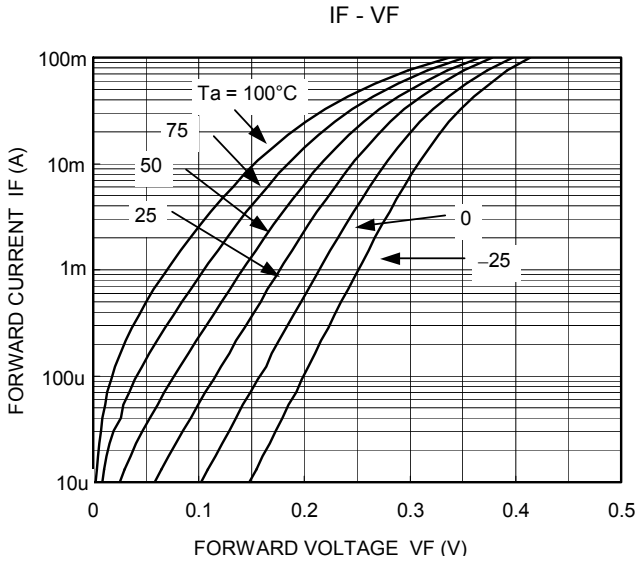
Weight: 0.0024 g (typ.)

## Electrical Characteristics (Ta = 25°C)

Characteristic	Symbol	Test Condition	Min	Typ.	Max	Unit
Forward voltage	$V_F (1)$	$I_F = 1 \text{ mA}$	—	0.18	—	V
	$V_F (2)$	$I_F = 5 \text{ mA}$	—	0.23	—	
	$V_F (3)$	$I_F = 100 \text{ mA}$	—	0.38	0.5	
Reverse current	$I_R (1)$	$V_R = 10 \text{ V}$	—	—	20	μA
	$I_R (2)$	$V_R = 30 \text{ V}$	—	—	50	
Total capacitance (between Cathode and Anode)	$C_T$	$V_R = 0, f = 1 \text{ MHz}$	—	15	—	pF

## Marking





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20070701-EN GENERAL

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