TOSHIBA Diode Silicon Epitaxial Schottky Barrier Type

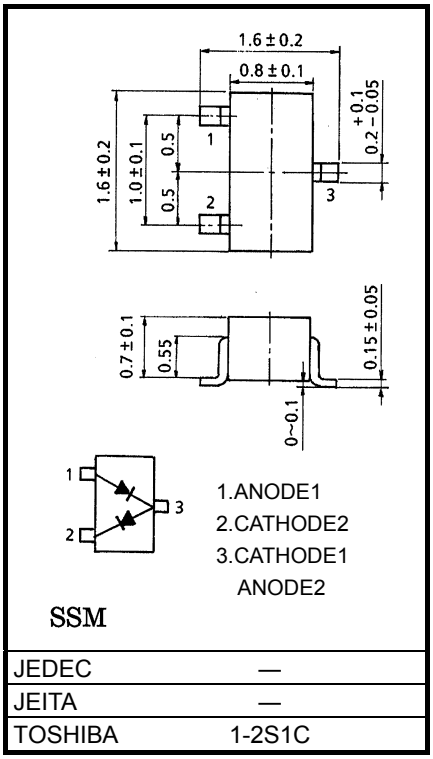
1SS422

High-Speed Switching Applications

Unit: mm

Low forward voltage VF = 0.23 V (typ.)@IF = 5 mA

- Small package suitable for mounting on a small space



JEDEC	—
JEITA	—
TOSHIBA	1-2S1C

Weight: 0.0024 g (typ.)

Absolute Maximum Ratings (Ta = 25°C)

Characteristics	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

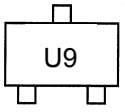
Note: Using continuously under heavy loads (e.g. the application of high temperature/current/voltage and the significant change in temperature, etc.) may cause this product to decrease in the reliability significantly even if the operating conditions (i.e. operating temperature/current/voltage, etc.) 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.

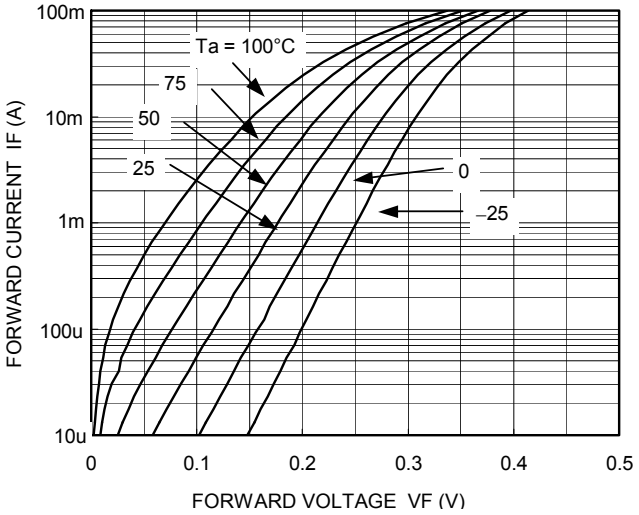
Electrical Characteristics (Ta = 25°C)

Characteristics	Symbol	Test Condition	Min	Typ.	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 = 100 mA	—	0.38	0.5	
Reverse current	$I_{R\ (1)}$	V_R = 10 V	—	—	20	μA
	$I_{R\ (2)}$	V_R = 30 V	—	—	50	
Total capacitance (between Cathode and Anode)	C_T	V_R = 0, f = 1 MHz	—	15	—	pF

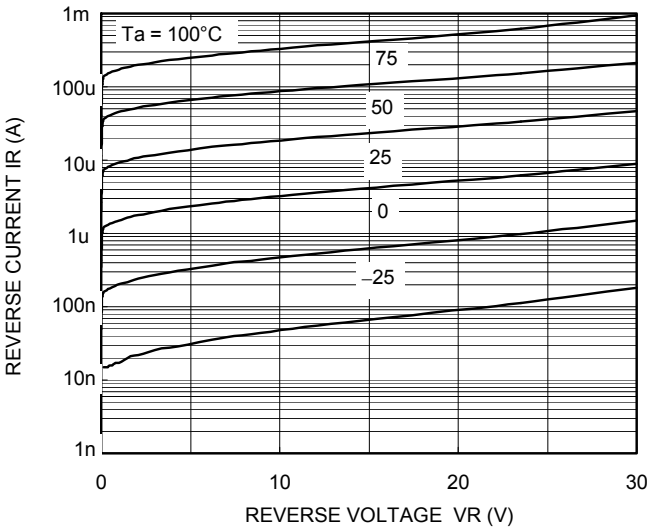
Marking



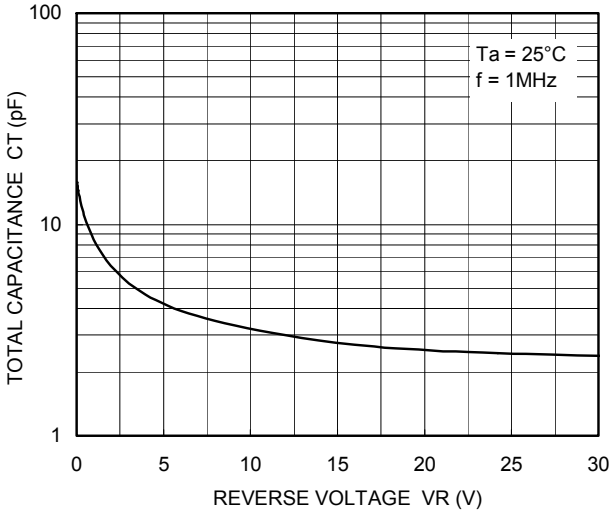
IF - VF



IR - VR



CT - VR



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