

TOSHIBA Diode Silicon Epitaxial Schottky Barrier Type

1SS391

Low Voltage High Speed Switching

- Low forward voltage: $V_F(2) = 0.23V$ (typ.)
- Small package: SC-61

Absolute Maximum Ratings ($T_a = 25^\circ C$)

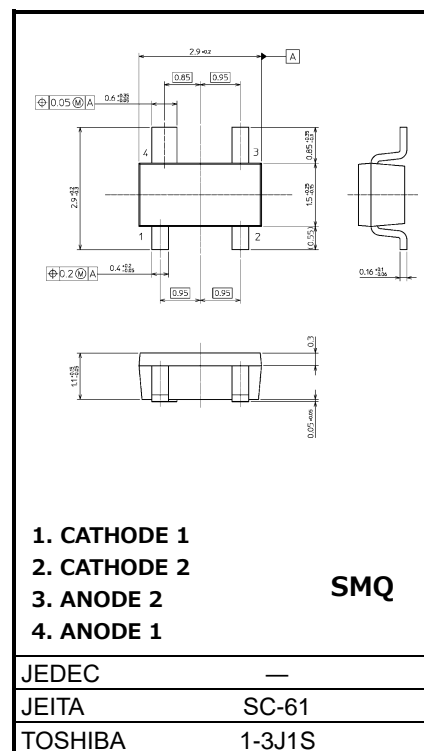
Characteristic	Symbol	Rating	Unit
Maximum (peak) reverse Voltage	V_{RM}	15	V
Reverse voltage	V_R	10	V
Maximum (peak) forward current	I_{FM}	200 *	mA
Average forward current	I_O	100 *	mA
Surge current (10ms)	I_{FSM}	1 *	A
Power dissipation	P	150 *	mW
Junction temperature	T_j	125	$^\circ C$
Storage temperature range	T_{stg}	-55 to 125	$^\circ C$
Operating temperature range	T_{opr}	-40 to 100	$^\circ C$

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).

*: Unit rating. Total rating = unit rating \times 1.5

Unit: mm



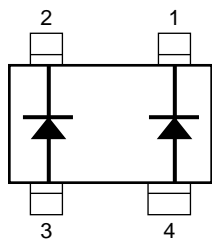
Weight: 13mg (typ.)

Electrical Characteristics ($T_a = 25^\circ C$)

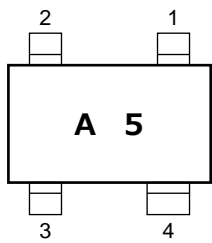
Characteristic	Symbol	Test Condition	Min	Typ.	Max	Unit
Forward voltage	$V_F(1)$	$I_F = 1mA$	—	0.18	—	V
	$V_F(2)$	$I_F = 5mA$	—	0.23	0.30	V
	$V_F(3)$	$I_F = 100mA$	—	0.35	0.50	V
Reverse current	I_R	$V_R = 10V$	—	—	20	μA
Total capacitance	C_T	$V_R = 0V, f = 1MHz$	—	20	40	pF

Start of commercial production
1994-10

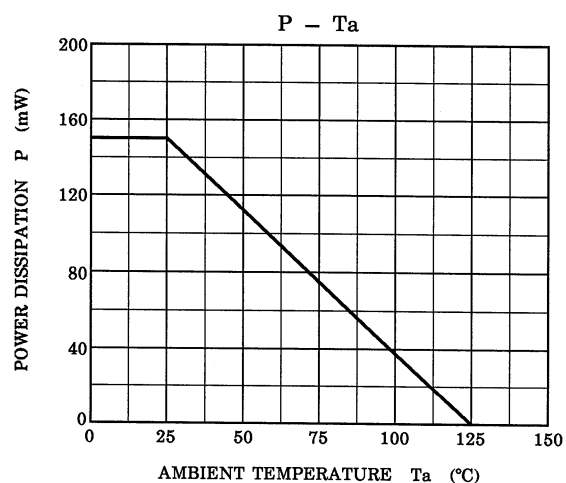
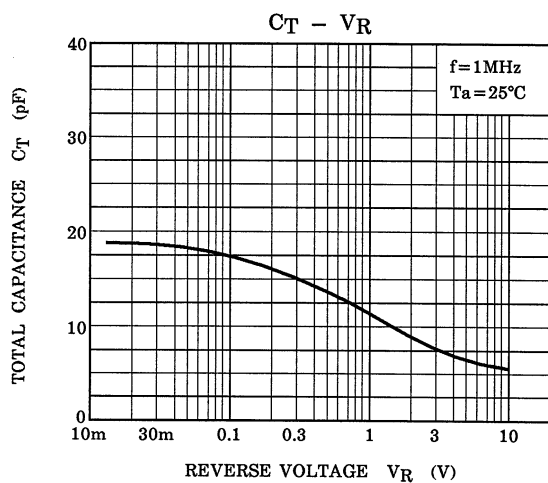
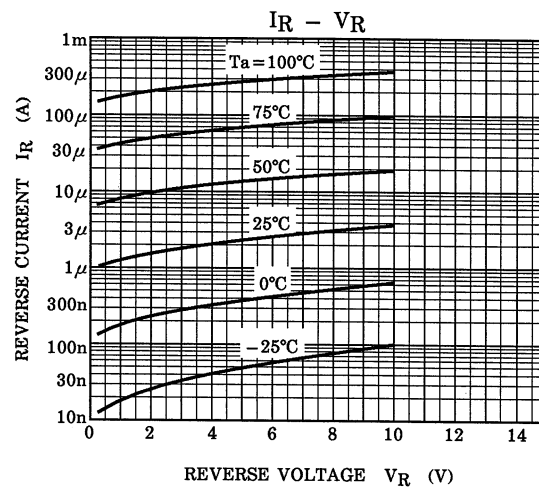
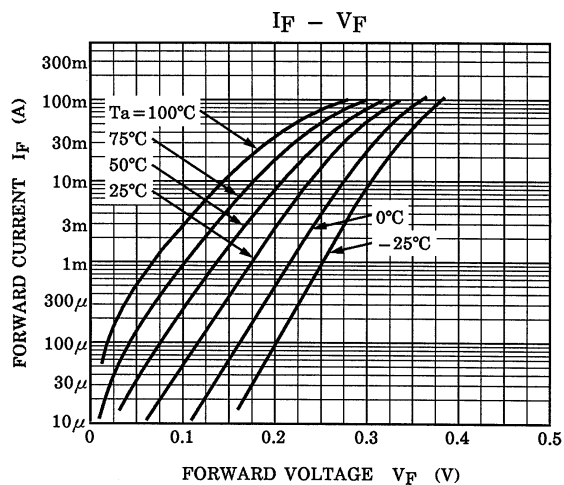
Equivalent circuit (Top view)



Marking



Electrical Characteristics (Ta = 25°C)



The above characteristics curves are presented for reference only and not guaranteed by production test, unless otherwise noted.

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