

TOSHIBA Diode Silicon Epitaxial Schottky Barrier Type

## 1SS394

### High Speed Switching Application

- AEC-Q101 Qualified (Note1)
- Small package : SC-59
- Low forward voltage :  $V_F(2) = 0.23V$  (typ.)

Note1: For detail information, please contact to our sales.

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

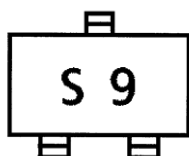
Characteristic	Symbol	Rating	Unit
Maximum (peak) reverse Voltage	$V_{RM}$	15	V
Reverse voltage	$V_R$	10	V
Maximum (peak) forward current	$I_{FM}$	200	mA
Average forward current	$I_O$	100	mA
Surge current (10ms)	$I_{FSM}$	1	A
Power dissipation	P	150	mW
Junction temperature	$T_j$	125	$^\circ C$
Storage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

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

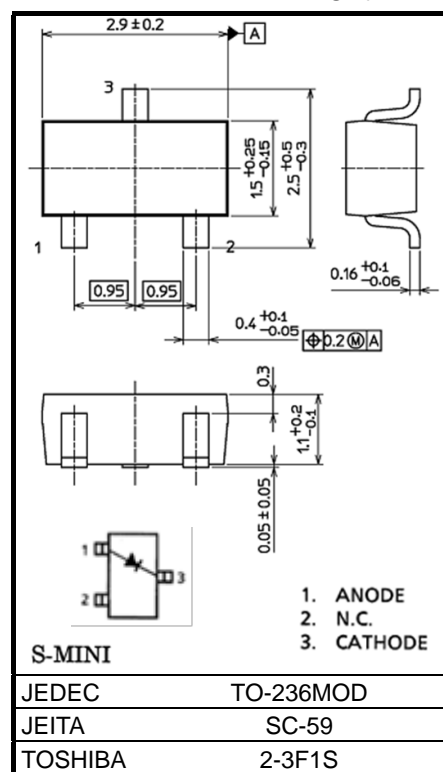
Characteristic	Symbol	Test Condition	Min	Typ.	Max	Unit
Forward voltage	$V_F(1)$	$I_F = 1mA$	—	0.18	—	V
	$V_F(2)$	$I_F = 5mA$	—	0.23	0.30	
	$V_F(3)$	$I_F = 100mA$	—	0.35	0.50	
Reverse current	$I_R$	$V_R = 10V$	—	—	20	$\mu A$
Total capacitance	$C_T$	$V_R = 0V, f = 1MHz$	—	20	40	pF

### Marking

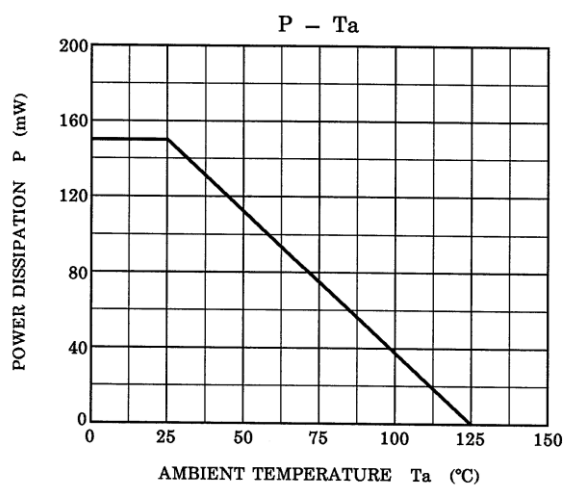
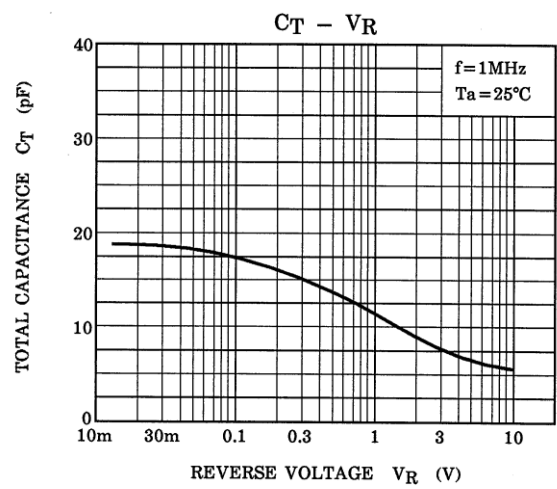
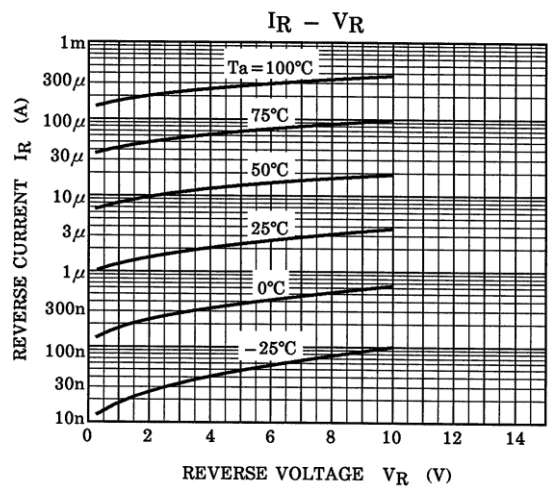
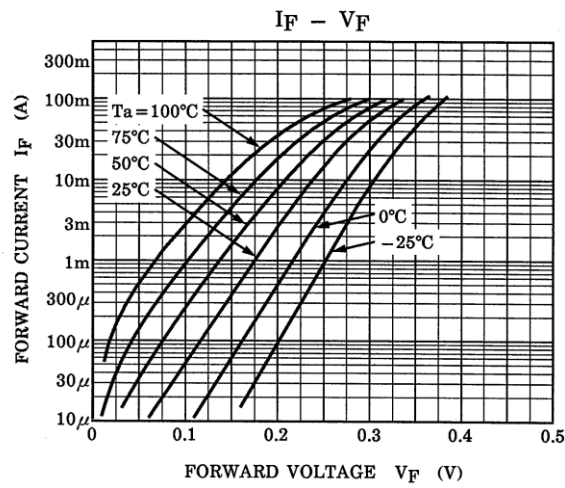


Start of commercial production  
1996-04

Unit: mm



Weight: 12 mg (typ.)



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