TOSHIBA Diode Silicon Epitaxial Planar Type

# **1SS307**

### General Puropose Rectifier Applications

 Low forward voltage  $: V_F = 1.0V \text{ (typ.)}$ Low reverse current  $: I_{R} = 10nA (max)$ Small total capacitance  $: C_T = 3.0 pF (typ.)$ 

Small package : SC-59

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

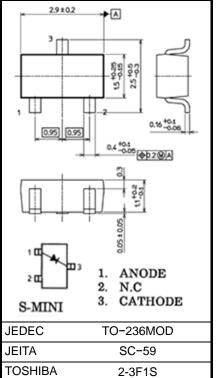
Characteristic	Symbol	Rating	Unit
Maximum (peak) reverse voltage	VRM	35	V
Reverse voltage	VR	30	V
Maximum (peak) forward current	IFM	300	mA
Average forward current	lo	100	mA
Surge current (10ms)	IFSM	1	Α
Power dissipation	Р	150	mW
Junction temperature	Tj	125	°C
Storage temperature	T <sub>stg</sub>	−55 to 125	°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).

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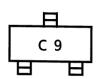


Weight: 12 mg (typ.)

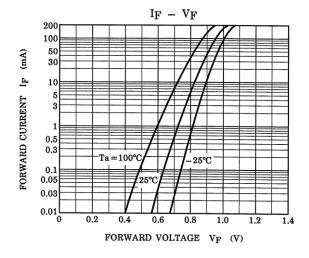
## **Electrical Characteristics (Ta = 25°C)**

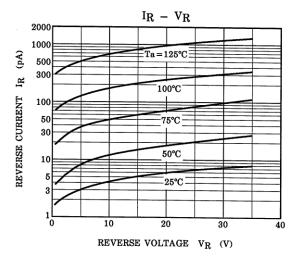
Characteristic	Symbol	Test Condition	Min	Тур.	Max	Unit
Forward voltage	VF	I <sub>F</sub> = 100mA	_	1.0	1.3	V
Reverse current	I <sub>R</sub>	V <sub>R</sub> = 30V	_	_	10	nA
Total capacitance	CT	$V_R = 0V$ , $f = 1MHz$	1	3.0	6.0	pF

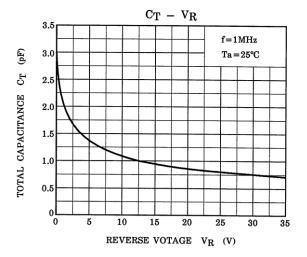
### Marking

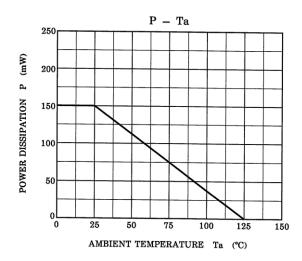


Start of commercial production 1988-05









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