

TOSHIBA Diode Silicon Epitaxial Planar Type

# 1SS307

## General Purpose Rectifier Applications

- Low forward voltage :  $V_F = 1.0V$  (typ.)
- Low reverse current :  $I_R = 0.1nA$  (typ.)
- Small total capacitance :  $C_T = 3.0pF$  (typ.)
- Small package : SC-59

## 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	$I_{FM}$	300	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	°C
Storage temperature	$T_{stg}$	-55 to 125	°C

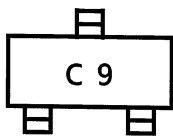
Note: Using continuously under heavy loads (e.g. the application of high temperature/current/voltage and the significant change in temperature, etc.) may cause this product to decrease in the reliability significantly even if the operating conditions (i.e. operating temperature/current/voltage, etc.)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

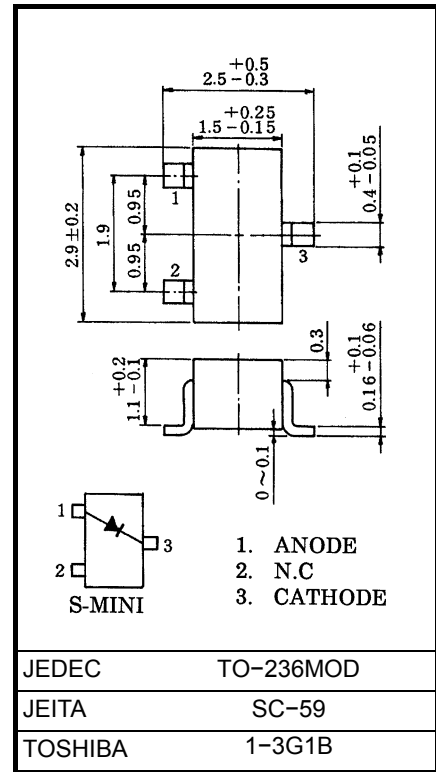
## Electrical Characteristics (Ta = 25°C)

Characteristic	Symbol	Test Circuit	Test Condition	Min	Typ.	Max	Unit
Forward voltage	$V_F$	—	$I_F = 100mA$	—	1.0	1.3	V
Reverse current	$I_R$	—	$V_R = 30V$	—	—	10	nA
Total capacitance	$C_T$	—	$V_R = 0, f = 1MHz$	—	3.0	6.0	pF

## Marking

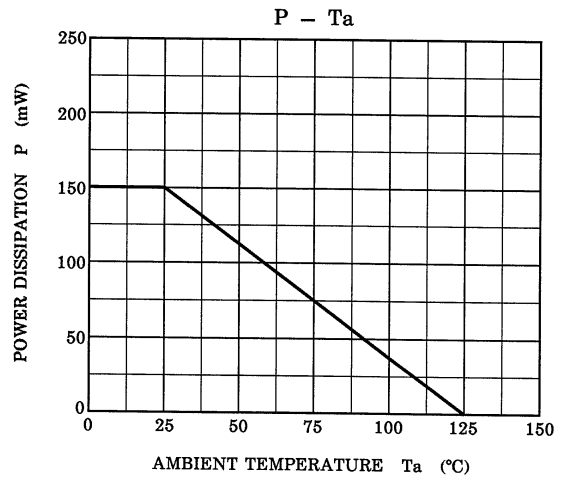
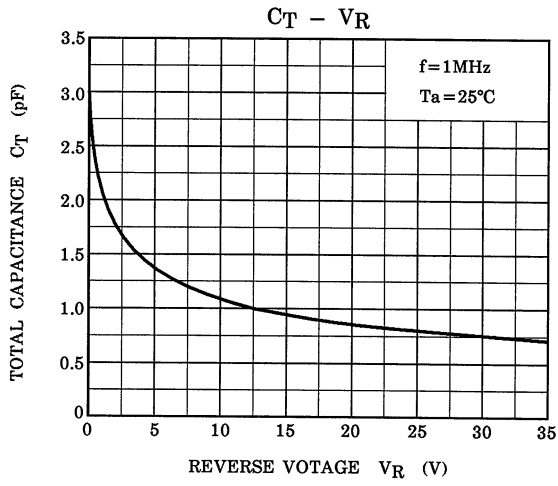
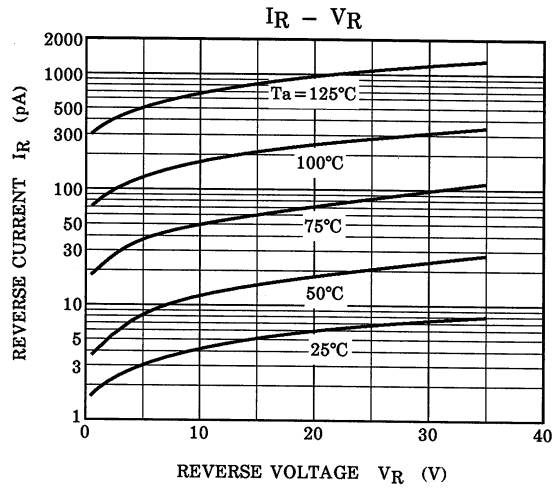
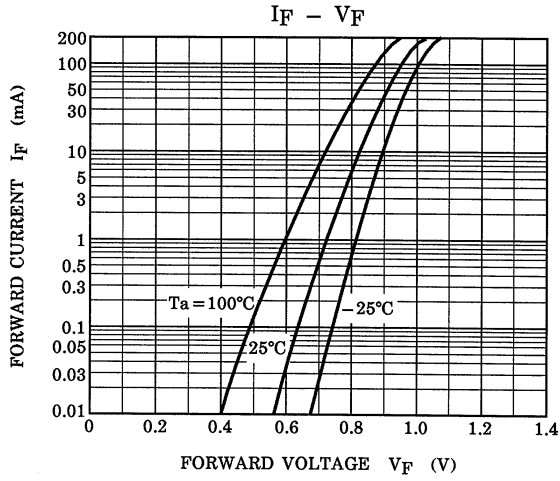


Unit: mm



Weight: 12 mg (typ.)

Start of commercial production  
1988-05



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