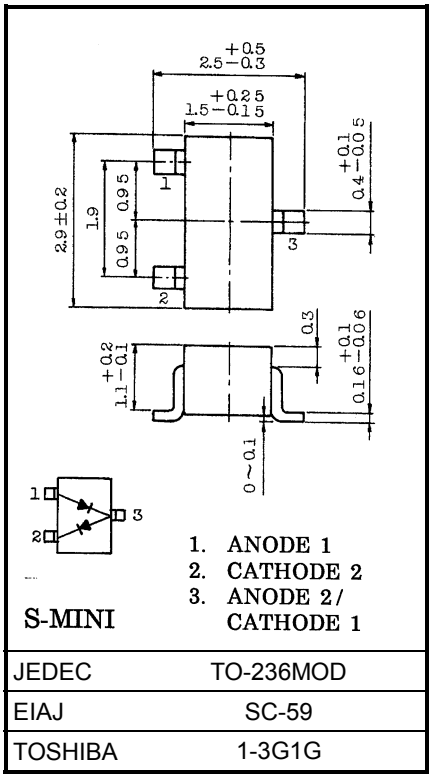
TOSHIBA Diode Silicon Epitaxial Planar Type

1SS379

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

Unit in mm



JEDEC	TO-236MOD
EIAJ	SC-59
TOSHIBA	1-3G1G

Weight: 0.012g

Maximum Ratings (Ta = 25°C)

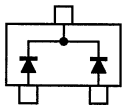
Characteristic	Symbol	Rating	Unit
Maximum (peak) reverse Voltage	V_{RM}	85	V
Reverse voltage	V_R	80	V
Maximum (peak) forward current	I_{FM}	300 *	mA
Average forward current	I_O	100 *	mA
Surge current (10ms)	I_{FSM}	2 *	A
Power dissipation	P	150	mW
Junction temperature	T_j	125	°C
Storage temperature range	T_{stg}	−55~125	°C

*: Unit rating. Total rating = unit rating × 0.7

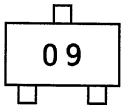
Electrical Characteristics (Ta = 25°C)

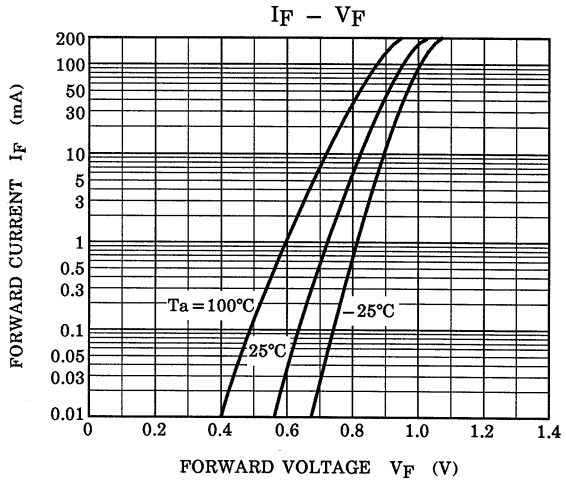
Characteristic	Symbol	Test Circuit	Test Condition	Min.	Typ.	Max.	Unit
Forward voltage	V_F	—	I_F = 100mA	—	1.0	1.3	V
Reverse current	I_R	—	V_R = 80V	—	0.1	10	nA
Total capacitance	C_T	—	V_R = 0, f = 1MHz	—	3.0	6.0	pF

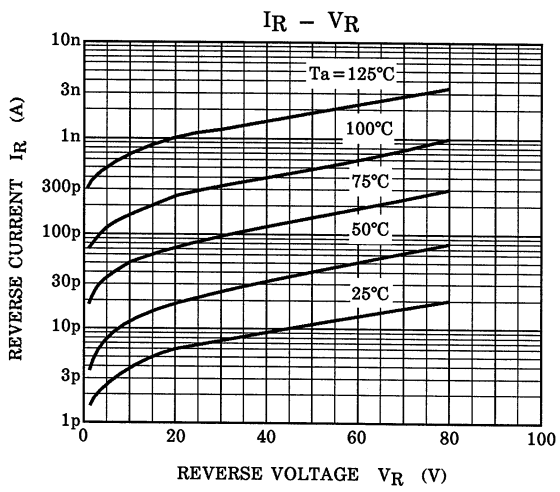
Equivalent Circuit (Top View)

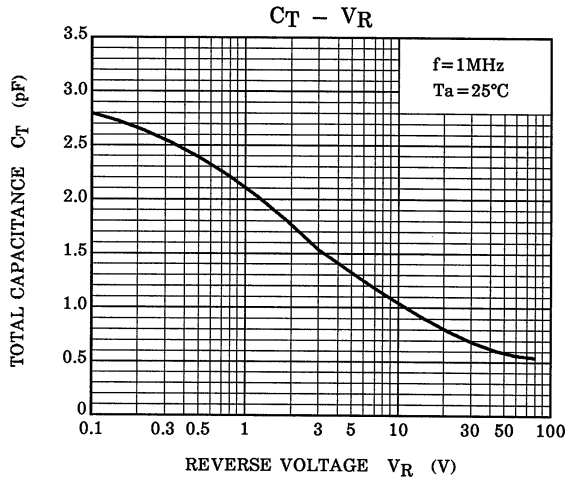


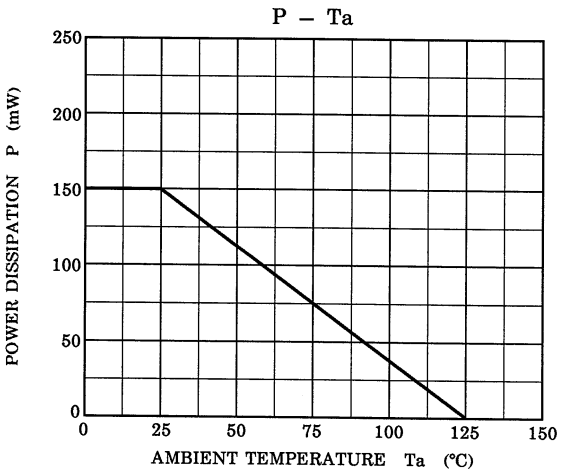
Marking




$I_F - V_F$
FORWARD CURRENT I_F (mA)
200
100
50
30
10
5
3
1
0.5
0.3
0.1
0.05
0.03
0.01
Ta = 100°C
25°C
25°C
0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
FORWARD VOLTAGE V_F (V)


$I_R - V_R$
REVERSE CURRENT I_R (A)
10n
3n
1n
300p
100p
30p
10p
3p
1p
Ta = 125°C
100°C
75°C
50°C
25°C
0
20
40
60
80
100
REVERSE VOLTAGE V_R (V)


$C_T - V_R$
TOTAL CAPACITANCE C_T (pF)
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0
f = 1MHz
Ta = 25°C
0.1
0.3
0.5
1
3
5
10
30
50
100
REVERSE VOLTAGE V_R (V)


P – Ta
POWER DISSIPATION P (mW)
250
200
150
100
50
0
0
25
50
75
100
125
150
AMBIENT TEMPERATURE Ta (°C)

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000707EAA

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