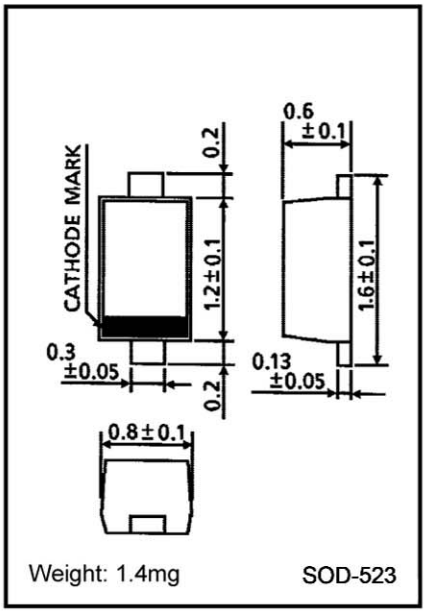
1SS388

● High Speed Switching Application

Small package
Low forward voltage: $V_{F\ (3)}$ = 0.54V (typ.)
Low reverse current: I_R = 5μA (typ.)

Unit: mm



Weight: 1.4mg SOD-523

● Maximum Ratings (Ta = 25°C)

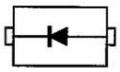
Characteristic	Symbol	Rating	Unit
Maximum (peak) reverse Voltage	V_{RM}	45	V
Reverse voltage	V_R	40	V
Maximum (peak) forward current	I_{FM}	300	mA
Average forward current	I_O	100	mA
Surge current (10ms)	I_{FSM}	1	A
Power dissipation	P *	150	mW
Junction temperature	T_j	125	°C
Storage temperature range	T_{stg}	−55~125	°C
Operating temperature range	T_{opr}	−40~100	°C

* Mounted on a glass epoxy circuit board of 20 × 20 mm, pad dimension of 4 × 4 mm.

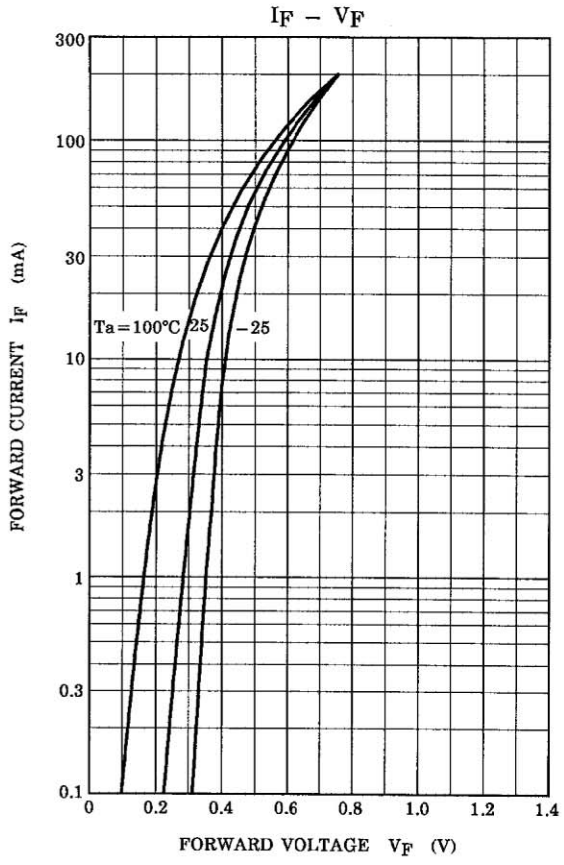
● Electrical Characteristics (Ta = 25°C)

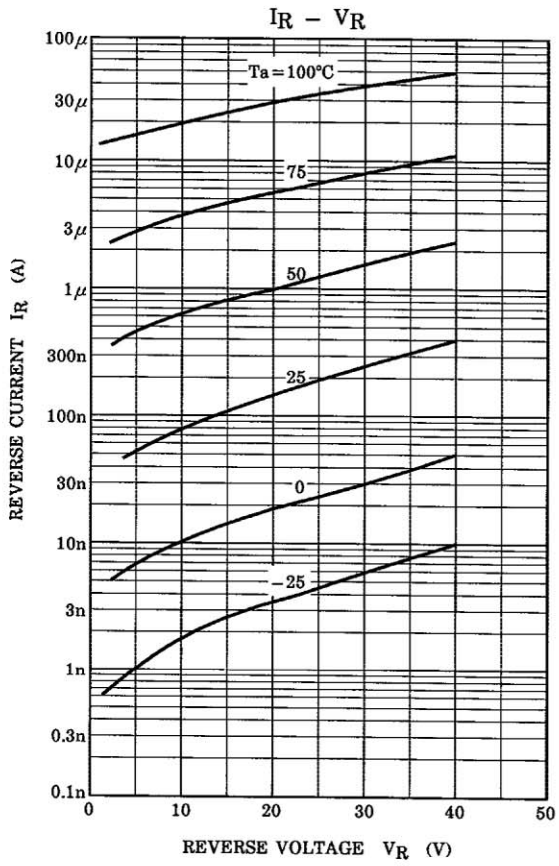
Characteristic	Symbol	Test Circuit	Test Condition	Min	Typ.	Max	Unit
Forward voltage	$V_{F\ (1)}$	—	I_F = 1mA	—	0.28	—	V
	$V_{F\ (2)}$	—	I_F = 10mA	—	0.36	—	
	$V_{F\ (3)}$	—	I_F = 50mA	—	0.54	0.60	
Reverse current	I_R	—	V_R = 10V	—	—	5	μA
Total capacitance	C_T	—	V_R = 0, f = 1MHz	—	18	25	pF

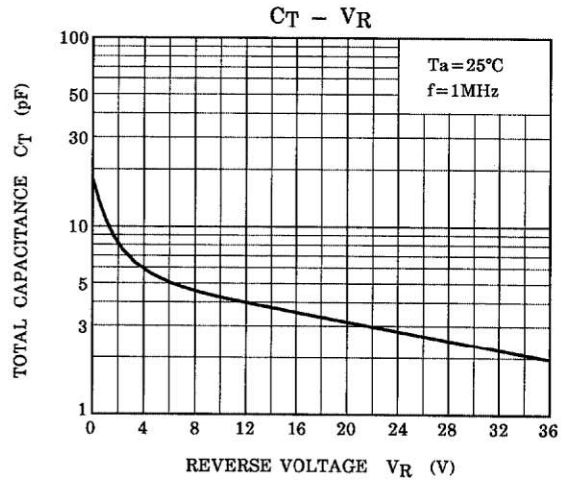
● Equivalent Circuit (Top View)

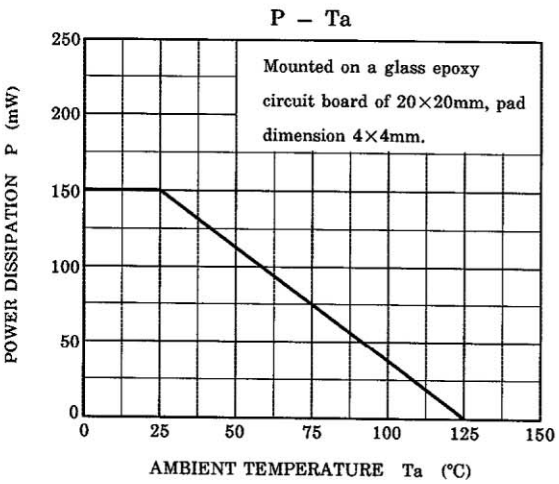


● Marking


$I_F - V_F$
FORWARD CURRENT I_F (mA)
300
100
30
10
3
1
0.3
0.1
Ta=100°C
25
−25
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)
100μ
30μ
10μ
3μ
1μ
300n
100n
30n
10n
3n
1n
0.3n
0.1n
Ta=100°C
75
50
25
0
−25
0
10
20
30
40
50
REVERSE VOLTAGE V_R (V)


$C_T - V_R$
TOTAL CAPACITANCE C_T (pF)
100
50
30
10
5
3
1
Ta=25°C
f=1MHz
0
4
8
12
16
20
24
28
32
36
REVERSE VOLTAGE V_R (V)


P − Ta
POWER DISSIPATION P (mW)
250
200
150
100
50
0
Mounted on a glass epoxy
circuit board of 20×20mm, pad
dimension 4×4mm.
0
25
50
75
100
125
150
AMBIENT TEMPERATURE Ta (°C)