SILICON EPITAXIAL SCHOTTKY BARRIER DIODE

Features

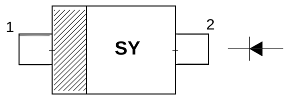
- Low forward voltage

Applications

- High speed switching

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



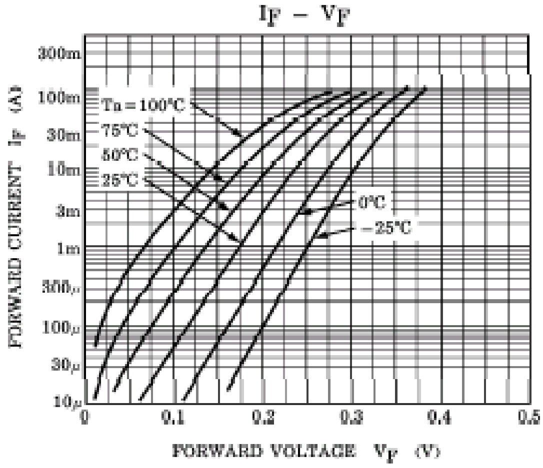
Top View
Marking Code: "**SY**"
Simplified outline SOD-323 and symbol

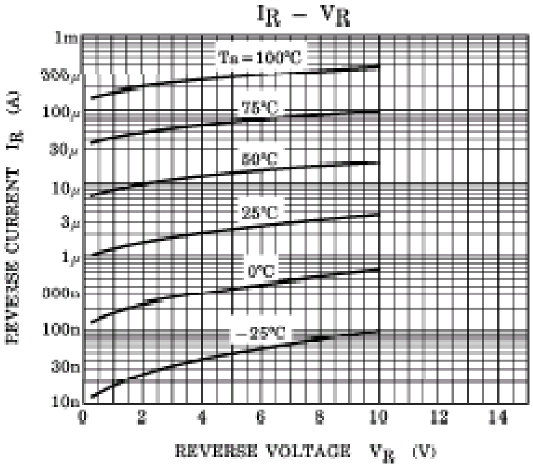
Absolute Maximum Ratings (T_a = 25 °C)

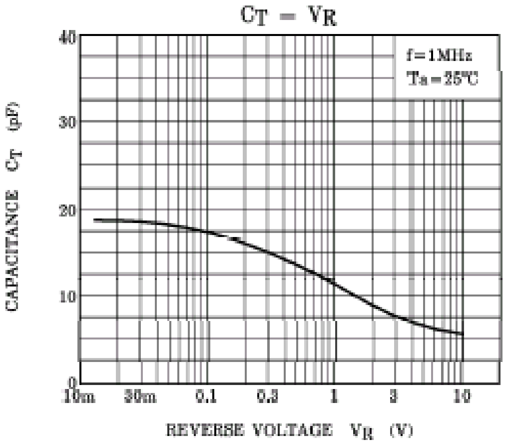
Parameter	Symbol	Value	Unit
Maximum (Peak) Reverse Voltage	V_{RM}	15	V
Reverse Voltage	V_R	10	V
Average Forward Current	I_O	100	mA
Maximum (Peak) Forward Current	I_{FM}	200	mA
Surge Forward Current (10 ms)	I_{FSM}	1	A
Power Dissipation	P_{tot}	150	mW
Junction Temperature	T_J	125	°C
Operating Temperature Range	T_{opr}	- 40 to + 100	°C
Storage Temperature Range	T_{stg}	- 55 to + 125	°C

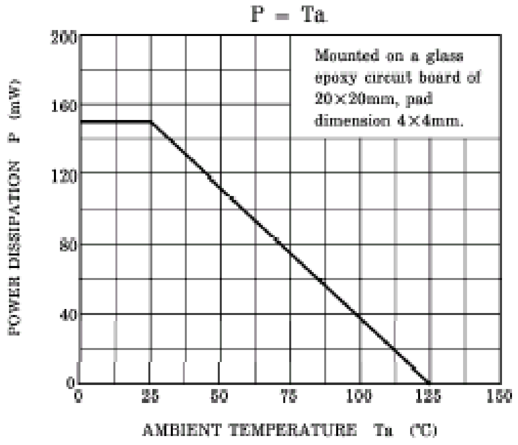
Characteristics at T_a = 25 °C

Parameter	Symbol	Max.	Unit
Forward Voltage at I_F = 5 mA at I_F = 100 mA	V_F	 0.3 0.5	V
Reverse Current at V_R = 10 V	I_R	20	µA
Total Capacitance at f = 1 MHz	C_T	40	pF


IF – VF
FORWARD CURRENT IF (A)
300m
100m
30m
10m
3m
1m
300μ
100μ
30μ
10μ
Ta=100°C
75°C
50°C
25°C
0°C
−25°C
0
0.1
0.2
0.3
0.4
0.5
FORWARD VOLTAGE VF (V)


IR – VR
REVERSE CURRENT IR (A)
1m
300μ
100μ
30μ
10μ
3μ
1μ
300n
100n
30n
10n
Ta=100°C
75°C
50°C
25°C
0°C
−25°C
0
2
4
6
8
10
12
14
REVERSE VOLTAGE VR (V)


CT – VR
CAPACITANCE CT (pF)
40
30
20
10
0
f=1MHz
Ta=25°C
10m
30m
0.1
0.3
1
3
10
REVERSE VOLTAGE VR (V)


P – Ta
POWER DISSIPATION P (mW)
200
160
120
80
40
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)