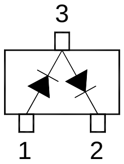
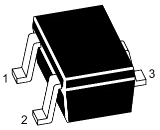
# 1SS372W

## SILICON EPITAXIAL SCHOTTKY BARRIER DIODE

### Applications

- High speed switching





SOT-323 Plastic Package
Marking Code: ME

### 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 |
| Peak Forward Surge Current ($t_p$ = 10 ms) | $I_{FSM}$ | 1 | A |
| Power Dissipation | $P_d$ | 100 | mW |
| Junction Temperature | $T_J$ | 125 | °C |
| Storage Temperature Range | $T_{stg}$ | - 55 to + 125 | °C |

### Characteristics at $T_a$ = 25 °C

| Parameter | Symbol | Max. | Unit |
|---|---|---|---|
| Forward Voltage<br>at $I_F$ = 5 mA<br>at $I_F$ = 100 mA | $V_F$ | 0.3<br>0.5 | V |
| Reverse Current<br>at $V_R$ = 10 V | $I_R$ | 20 | µA |
| Total Capacitance<br>at $V_R$ = 0, f = 1 MHz | $C_T$ | 40 | pF |

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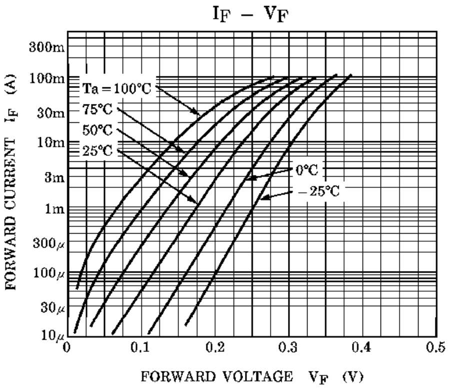
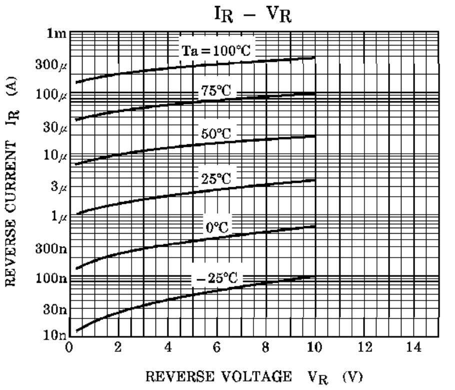
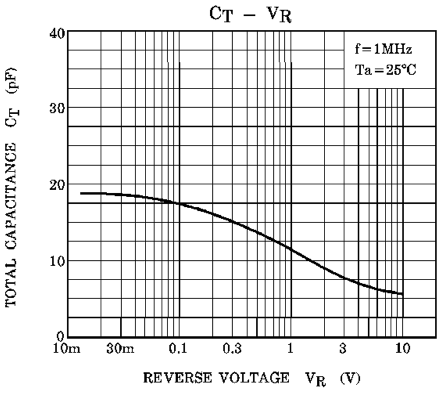
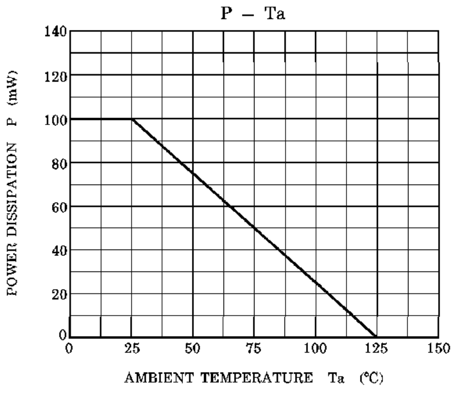
*Dated : 05/11/2007*


$I_F$ – $V_F$
FORWARD CURRENT $I_F$ (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 $V_F$ (V)


$I_R$ – $V_R$
REVERSE CURRENT $I_R$ (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 $V_R$ (V)


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


P – Ta
POWER DISSIPATION P (mW)
140
120
100
80
60
40
20
0
0
25
50
75
100
125
150
AMBIENT TEMPERATURE Ta (°C)