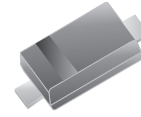


SMD Schottky Barrier Diode

RB521S-30

$I_o = 200 \text{ mA}$
 $V_R = 30 \text{ Volts}$
RoHS Device

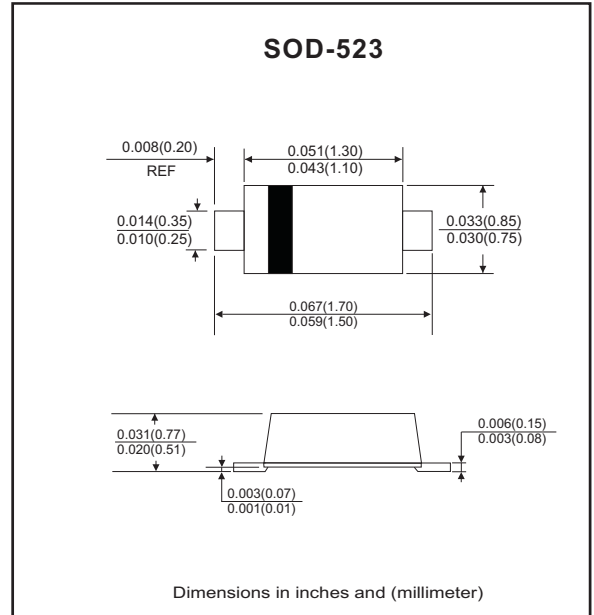


Features

- Low reverse current.
- Low forward voltage.
- Designed for mounting on small surface.
- Extremely thin package.
- Majority carrier conduction.

Mechanical data

- Case: SOD-523 standard package, Molded plastic.
- Terminals: solderable per MIL-STD-750, method 2026.
- Marking code: cathode band & C
- Mounting position: Any
- Weight: 0.0012 gram(approx.).



Circuit Diagram



Maximum Rating (at $T_A=25^\circ\text{C}$ unless otherwise noted)

| Parameter | Conditions | Symbol | Min | Typ | Max | Unit |
|----------------------------|--|-----------|-----|-----|------|------------------|
| DC Reverse voltage | | V_R | | | 30 | V |
| Mean rectifying current | | I_o | | | 200 | mA |
| Peak forward surge current | 8.3ms single half sine-wave superimposed on rate load (JEDEC method) | I_{FSM} | | | 1 | A |
| Storage temperature | | T_{STG} | | | +150 | $^\circ\text{C}$ |
| Junction temperature | | T_j | -55 | | +150 | $^\circ\text{C}$ |

Electrical Characteristics (at $T_A=25^\circ\text{C}$ unless otherwise noted)

| Parameter | Conditions | Symbol | Min | Typ | Max | Unit |
|-----------------|------------------------|--------|-----|-----|-----|---------------|
| Forward voltage | $I_F = 200 \text{ mA}$ | V_F | | | 0.5 | V |
| Reverse current | $V_R = 10 \text{ V}$ | I_R | | | 30 | μA |

RATING AND CHARACTERISTIC CURVES (RB521S-30)

Fig.1- Forward Characteristics

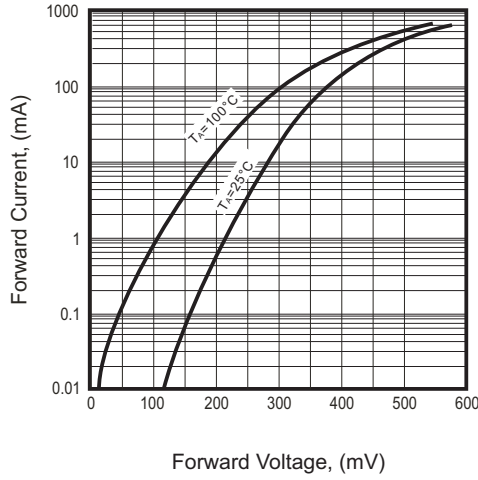


Fig. 2 - Reverse characteristics

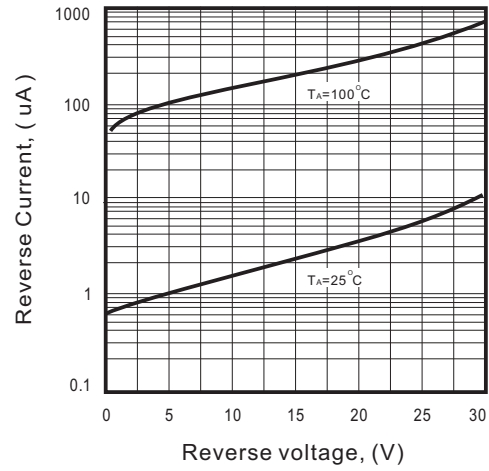


Fig. 3 - Capacitance characteristics

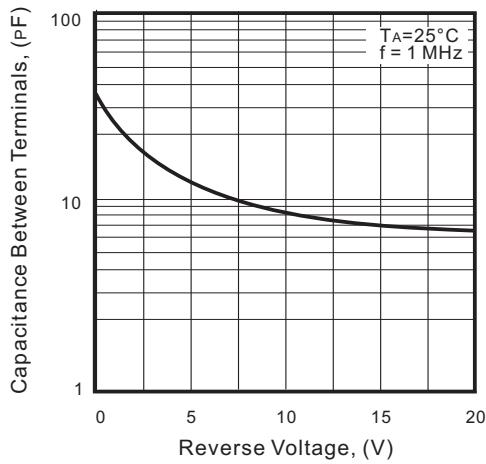
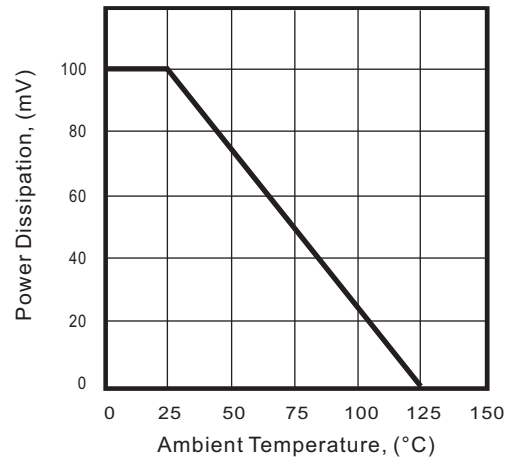
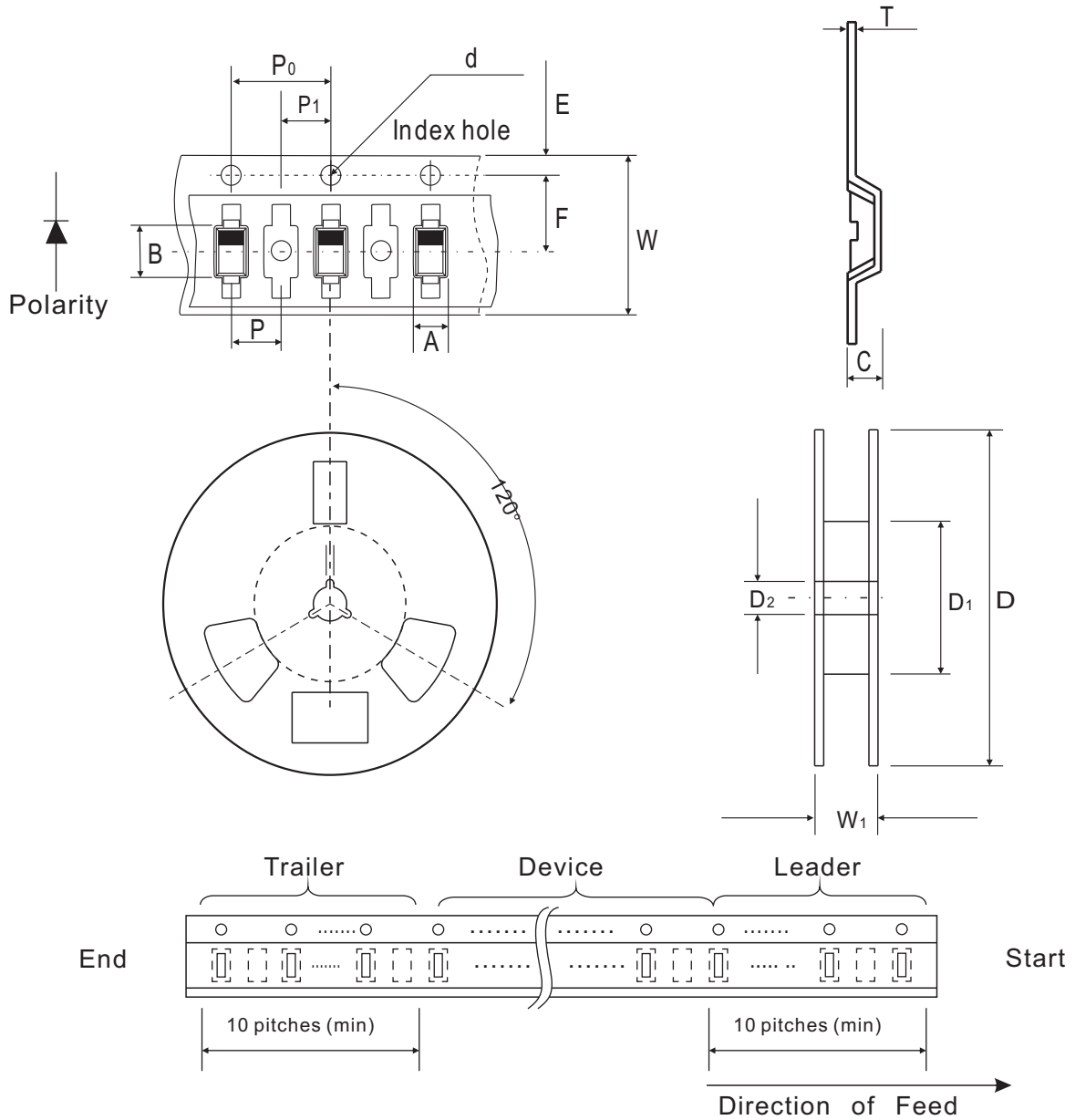


Fig.4 - Power Derating curve



Reel Taping Specification



| SOD-523 | SYMBOL | A | B | C | d | D | D ₁ | D ₂ |
|---------|--------|---------------|---------------|---------------|---------------|---------------|----------------|----------------|
| | (mm) | 0.90 ± 0.10 | 1.94 ± 0.10 | 0.73 ± 0.10 | 1.50 ± 0.10 | 178 ± 1.00 | 54.40 ± 0.40 | 13.00 ± 0.20 |
| | (inch) | 0.035 ± 0.004 | 0.076 ± 0.004 | 0.029 ± 0.004 | 0.059 ± 0.004 | 7.008 ± 0.039 | 2.142 ± 0.016 | 0.512 ± 0.008 |

| SOD-523 | SYMBOL | E | F | P | P ₀ | P ₁ | W | W ₁ |
|---------|--------|---------------|---------------|---------------|----------------|----------------|-------------------------|----------------|
| | (mm) | 1.75 ± 0.10 | 3.50 ± 0.05 | 2.00 ± 0.10 | 4.00 ± 0.10 | 2.00 ± 0.10 | 8.00 + 0.30 / - 0.10 | 9.50 ± 1.00 |
| | (inch) | 0.069 ± 0.004 | 0.138 ± 0.002 | 0.079 ± 0.004 | 0.158 ± 0.004 | 0.079 ± 0.004 | 0.315 + 0.012 / - 0.004 | 0.374 ± 0.039 |

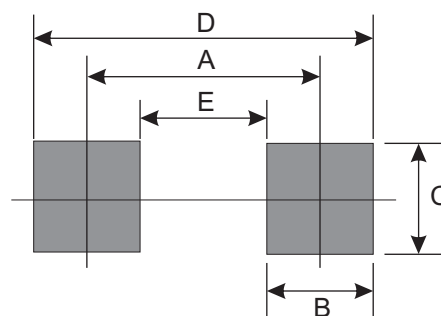
Marking Code

| Part Number | Marking Code |
|-------------|--------------|
| RB521S-30 | C |



Suggested PAD Layout

| SIZE | SOD-523 | |
|------|---------|--------|
| | (mm) | (inch) |
| A | 1.40 | 0.055 |
| B | 0.60 | 0.024 |
| C | 0.70 | 0.028 |
| D | 2.00 | 0.079 |
| E | 0.80 | 0.031 |



Standard Packaging

| Case Type | Qty Per Reel | Reel Size |
|-----------|--------------|-----------|
| | (Pcs) | (inch) |
| SOD-523 | 3,000 | 7 |