

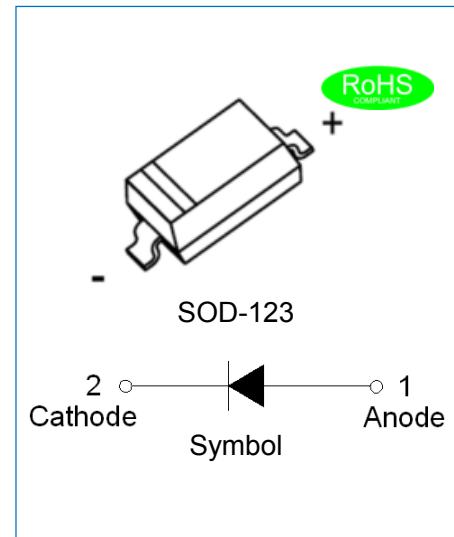
JSPD1140A

1A Schottky Barrier Rectifier

Rev.1.1

DESCRIPTION

- ✧ Plastic package has underwriters laboratories flammability classification 94V-0
- ✧ For surface mounted applications in order to optimize board space
- ✧ Lead free in compliance with EU RoHS 2011/65/EU directive
- ✧ For use in low voltage, high frequency inverters
- ✧ Free wheeling, and polarity protection applications

**MECHANICAL DATA**

- ✧ Case: SOD-123 molded plastic
- ✧ Terminals: Solder plated, solderable per J-STD-002
- ✧ Polarity: Color band denotes cathode end

ABSOLUTE MAXIMUM RATING(Rating at 25°C ambient temperature unless otherwise specified.)

| Parameter | Symbol | JSPD1140A | Unit |
|--|-------------|-------------|------|
| Maximum repetitive peak reverse voltage | V_{RRM} | 40 | V |
| Maximum RMS voltage | V_{RMS} | 28 | V |
| Maximum DC blocking voltage | V_{DC} | 40 | V |
| Maximum average forward current | $I_{F(AV)}$ | 1.0 | A |
| Peak forward surge current: 8.3ms single half sine-wave superimposed on rated load | I_{FSM} | 9 | A |
| Operating junction temperature range | T_j | -55 to +125 | °C |
| Storage temperature range | T_{stg} | -55 to +150 | °C |

ELECTRICAL CHARACTERISTICS(Rating at 25°C ambient temperature unless otherwise specified.)

| Parameter | Symbol | Min | Typ | Max | Unit |
|---------------------------------|--------------------|----------|-----|-----|------|
| Reverse breakdown voltage | $I_R=1mA$ | V_{BR} | 40 | | V |
| Forward voltage | $I_F=1A$ | V_F | | 0.6 | V |
| | $I_F=3A$ | | | 0.9 | |
| Reverse voltage leakage current | $V_R=40V$ | I_R | | 1 | mA |
| Junction capacitance | $V_R=4.0V, f=1MHz$ | C_J | | 120 | pF |

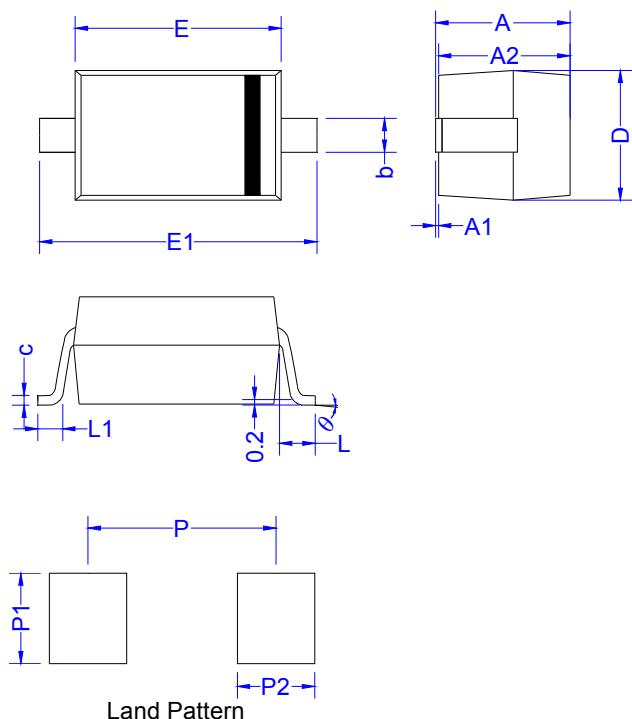
THERMAL RESISTANCES

| Symbol | Parameter | JSPD1140A | Unit |
|---------------|---|-----------|------|
| $R_{th(j-a)}$ | Thermal resistance from junction to ambient | 200 | °C/W |

MARKING

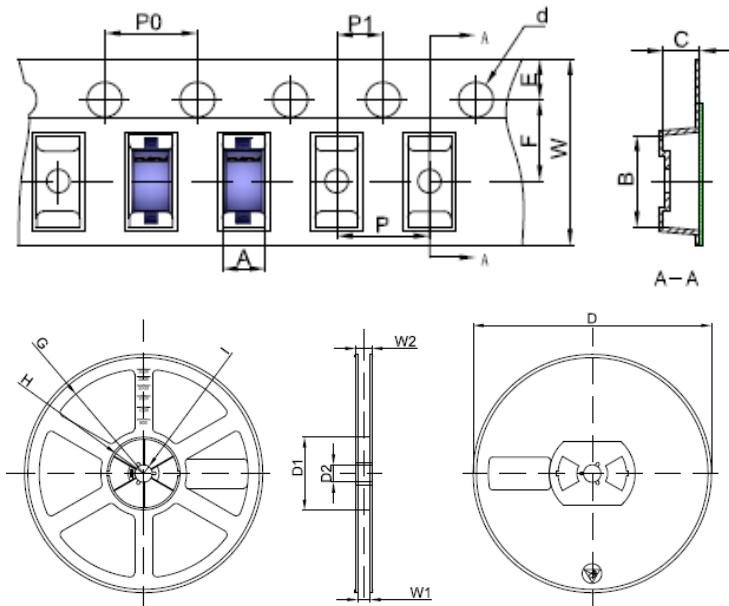
| Part Number | Marking Code |
|-------------|--------------|
| JSPD1140A | |

PACKAGE MECHANICAL DATA



| Symbol | Millimeters | | Inches | |
|--------|-------------|------|------------|-------|
| | Min | Max | Min | Max |
| A | 1.05 | 1.25 | 0.041 | 0.049 |
| A1 | 0.00 | 0.10 | 0.000 | 0.004 |
| A2 | 1.05 | 1.15 | 0.041 | 0.045 |
| b | 0.45 | 0.65 | 0.018 | 0.026 |
| c | 0.08 | 0.15 | 0.003 | 0.006 |
| D | 1.50 | 1.70 | 0.059 | 0.067 |
| E | 2.60 | 2.80 | 0.102 | 0.110 |
| E1 | 3.55 | 3.85 | 0.140 | 0.152 |
| L | 0.50REF. | | 0.020 REF. | |
| L1 | 0.25 | 0.45 | 0.010 | 0.018 |
| θ | 0° | 8° | 0° | 8° |
| P | 3.24 | | 0.128 | |
| P1 | 1.00 | | 0.039 | |
| P2 | 0.80 | | 0.031 | |

TAPE AND REEL SPECIFICATION-SOD-123



Packaging description:

SOD-123 parts are shipped in tape. The carrier tape is made from a dissipative(carbon filled) polycarbonate resin. The cover tape is a multilayer film(heat activated adhesive in nature)primarily composed of polyester film, adhesive layer, sealant, and anti-static sprayed agent. These reeled parts in standard option are shipped with 3,000 units per 7" or 17.8cm diameter reel. The reels are clear in color and made of polystyrene plastic(anti-static coated).

| Symbol | Millimeters | Inches |
|--------|-------------|---------|
| | Typ. | Typ. |
| A | 1.85 | 0.073 |
| B | 3.95 | 0.156 |
| C | 1.57 | 0.062 |
| d | Φ1.55 | Φ 0.061 |
| E | 1.75 | 0.069 |
| F | 3.50 | 0.138 |
| P0 | 4.0 | 0.157 |
| P | 4.0 | 0.157 |
| P1 | 2.0 | 0.079 |
| W | 8.00 | 0.315 |
| D | Φ178.0 | Φ7.008 |
| D1 | 54.40 | 2.142 |
| D2 | 13.0 | 0.512 |
| G | R78.0 | R3.071 |
| H | R25.60 | R1.008 |
| I | R6.50 | R0.256 |
| W1 | 9.50 | 0.374 |
| W2 | 12.30 | 0.484 |

ORDERING INFORMATION

| OUTLINE | PACKAGE | REEL SIZE | QUANTITY PER REEL |
|---------|---------|-----------|-------------------|
| TAPING | SOD-123 | 7 Inch | 3,000PCS |

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