

SINLOON®
POWER SEMICONDUCTOR

SB120 - SB1100



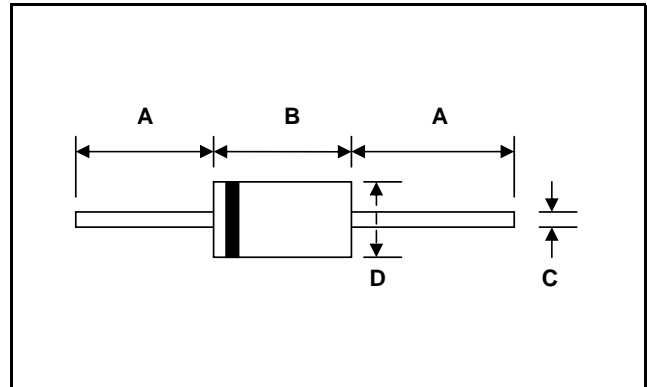
1.0A Schottky Barrier Diode

FEATURE

- ◆ Schottky Barrier Chip
- ◆ Guard Ring Die Construction for Transistor Protection.
- ◆ High Current Capability
- ◆ Low Power Loss. High Efficiency
- ◆ High Surge Current Capability
- ◆ For Use in Low Voltage, High Frequency Inverters, Free Wheeling, and Polarity Protection Applications.

MECHANICAL DATA

- ◆ Case: DO-41, Molded Plastic.
- ◆ Terminals: Solder Plated, Solderable per MIL-STD-202, Method 208
- ◆ Polarity: Cathode Band.
- ◆ Marking: Type Number
- ◆ Weight: 0.34 grams (approx)
- ◆ Mounting: Type Number
- ◆ Lead Free: For RoHS / Lead free Version, Add "LF" suffix to part Number, See page 3.



| DO-41 | | |
|----------------------|-------|-------|
| Dim. | Min. | Max. |
| A | 25.40 | — |
| B | 4.06 | 5.21 |
| C | 0.71 | 0.864 |
| D | 2.00 | 2.72 |
| All Dimensions in mm | | |

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS @TA = 25°C unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current bt 20%.

| Characteristic | Symbol | SB120 | SB130 | SB140 | SB150 | SB160 | SB180 | SB1100 | Unit |
|--|----------|-------------|-------|-------|-------|-------|-------|--------|------|
| Peak Repetitive Reverse Voltage | VRRM | | | | | | | | |
| Working Peak Reverse Voltage | VRWM | 20 | 30 | 40 | 50 | 60 | 80 | 100 | V |
| DC Blocking Voltage | VR | | | | | | | | |
| RMS Reverse Voltage | VR(RMS) | 14 | 21 | 28 | 35 | 42 | 56 | 70 | V |
| Average Rectified Output Current @TL=100°C (Note 1) | IO | 1.0 | | | | | | | A |
| Non-Repetitive Peak Forward Surtge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method) | IFSM | 40 | | | | | | | A |
| Forward Voltage @IF=1.0A | VFM | 0.50 | | 0.70 | | 0.85 | | | V |
| Peak Reverse Current @TA=25°C | IRM | 0.5 | | | | | | | mA |
| At Rated DC Blocking Voltage @TA=100°C | | 10 | | | | | | | |
| Typical Junction Capacitance (Note 2) | Cj | 100 | | | 80 | | | | pF |
| Typical Thermal Resistance (Note 1) | RθJL | 15 | | | | | | | °C/W |
| | RθJA | 50 | | | | | | | |
| Operating and Storage Temperature Range | TJ, TSTG | -65 to +150 | | | | | | | °C |

- Note:** 1). Valid provided that leads are kept at ambient temperature at a distance of 9.5mm from the case.
2). Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.



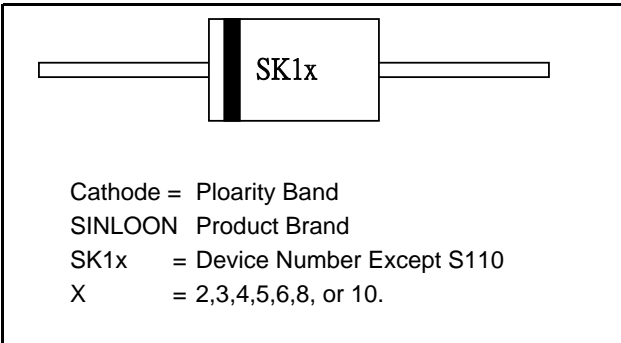
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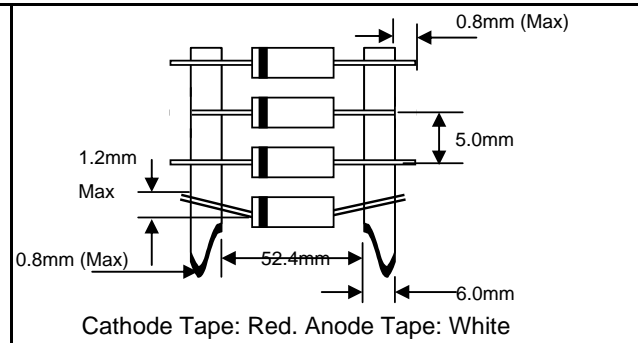
SB120 - SB1100

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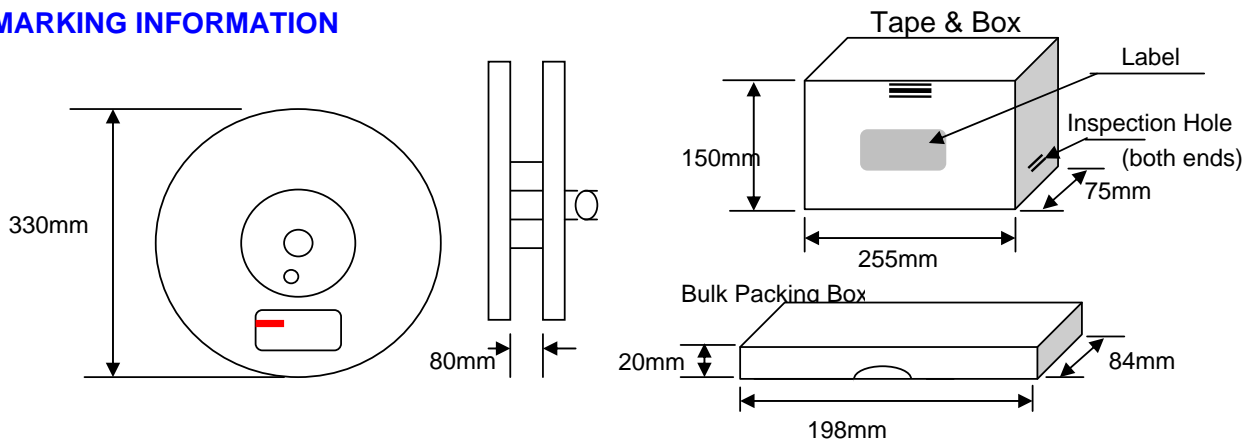
MARKING INFORMATION



RECOMMENDED FOOTPRINT



MARKING INFORMATION



| Packaging (mm) | Quantity (PCS) | Reel Daimeter Box Size (mm) | Carton Size LxWxH (mm) | Quantity (PCS) | Approx Gross Weight (KG) |
|----------------|----------------|-----------------------------|------------------------|----------------|--------------------------|
| Tape & Reel | 5000 | 330 | 370x370x420 | 25000 | 13.0 |
| Tape & Box | 5000 | 255x75x150 | 400x273x415 | 50000 | 21.0 |
| Bulk Box | 1000 | 198x84x20 | 459x214x256 | 50000 | 19.5 |

- Note: 1). Paper reel, white or gray color. Core material: plastic or metal.
2). Components are packed in accprdance with EIA standar RS-296-E

ORDERING INFORMATION

| Product No. | Package Type | Shipping Quantity | Product No. | Package Type | Shipping Quantity |
|-------------|--------------|-------------------|-------------|--------------|-------------------|
| SB120-T3 | DO-41 | 5000/Tape & Reel | SB160-T3 | DO-41 | 5000/Tape & Reel |
| SB120-TB | DO-41 | 5000/Tape & Reel | SB160-TB | DO-41 | 5000/Tape & Reel |
| SB120 | DO-41 | 1000 Unit/Box | SB160 | DO-41 | 1000 Unit/Box |
| SB130-T3 | DO-41 | 5000/Tape & Reel | SB180-T3 | DO-41 | 5000/Tape & Reel |
| SB130-TB | DO-41 | 5000/Tape & Reel | SB180-TB | DO-41 | 5000/Tape & Reel |
| SB130 | DO-41 | 1000 Unit/Box | SB180 | DO-41 | 1000 Unit/Box |
| SB140-T3 | DO-41 | 5000/Tape & Reel | SB1100-T3 | DO-41 | 5000/Tape & Reel |
| SB140-TB | DO-41 | 5000/Tape & Reel | SB1100-TB | DO-41 | 5000/Tape & Reel |
| SB140 | DO-41 | 1000 Unit/Box | SB1100 | DO-41 | 1000 Unit/Box |
| SB150-T3 | DO-41 | 5000/Tape & Reel | | | |
| SB150-TB | DO-41 | 5000/Tape & Reel | | | |
| SB150 | DO-41 | 1000 Unit/Box | | | |

- 1). Products listed in bold are WTE Preferred devices.
2). Shipping quantity given in minimum packing quantity only, for minimum order quantity, please consult the Sales Department.
3). To oder RoHS /Lead Free version (with Lead Free finish), add "LF" suffix to part number above, for example, SK120-TB-LF.