B120W THRU B1100W

1A Surface Mount Schottky Barrier Rectifiers

Features

- Low profile surface mounted application in order to optimize board space.
- Low power loss, high efficiency.
- High current capability, low forward voltage drop.
- Ultra high-speed switching.
- Silicon epitaxial planar chip, metal silicon junction.
- Suffix "G" indicates Halogen-free part, ex.B120WG.
- Lead-free parts meet environmental standards of MIL-STD-19500 /228

Mechanical data

- Epoxy:UL94-V0 rated flame retardant
- Case : Molded plastic, SOD-123
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity : Indicated by cathode band
- Weight : 0.0004 ounce, 0.010 gram

Dimensions in inches and (millimeters)

Maximum ratings and electrical characteristics

Rating at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

| Parameter | | | Conditions | | | Symbol | MIN. | TYP. | MAX. | UNIT | |
|----------------------------|--------------|--|--|---|------|--|------|------|--|------|--|
| Forward rectified current | | | See Fig.1 | | | I _o | | | 1.0 | А | |
| Forward surge current | | | 8.3ms single half sine-wave superimposed on rate load (JEDEC method) | | | I _{FSM} | | | 5.5 | А | |
| Reverse current | | | $V_{R} = V_{RRM} T_{A} = 25^{\circ}C$ | | | - I _R | | | 0.1 | mA | |
| | | | $V_{R} = V_{RRM} T_{A} = 100^{\circ}C$ | | | | | | 20 | | |
| Diode junction capacitance | | | f=1MHz and applied 4V DC reverse voltage | | | C | | 120 | | pF | |
| Thermal resistance | | | Junction to ambient | | | R _{eja} | | 88 | | °C/W | |
| Storage temperature | | | | | | T _{stg} | -55 | | +175 | °C | |
| | 1 | | | | | | | | | | |
| Symbol | Marking code | Max. repetitive pea reverse voltag V _{RRM} (V) | | Max. DC blocking voltage V _R (V) | | forward ⊉1A, T _A = 2 V _F (V) | | Oper | Operating temperature T _J (°C) | | |
| B120W | SJ | 20 | 14 | 20 | 0.52 | | | | | | |
| B140W | SL, SF | 40 | 28 | 40 | | 0.55 | | | 55 1450 | | |
| B160W | SM | 60 | 42 | 60 | | 0.75 0.86 | | | -55 ~ +150 | | |
| B1100W | SN | 100 | 70 | 100 | | | | | | | |



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