

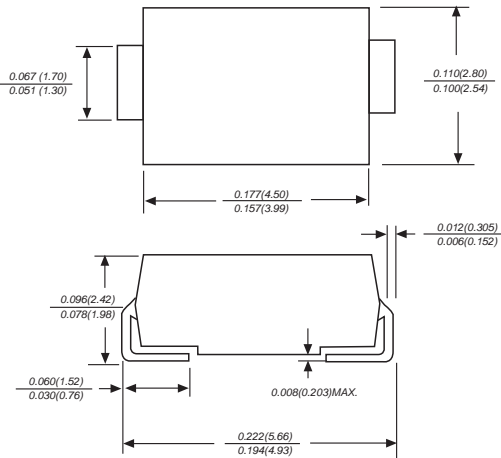


B120A THRU B1200A

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 20 to 200 Volts Forward Current - 1.0 Ampere

DO-214AC/SMA



FEATURES

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ For surface mounted applications
- ◆ Metal silicon junction, majority carrier conduction
- ◆ Low power loss, high efficiency
- ◆ Built-in strain relief, ideal for automated placement
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed: 250°C/10 seconds at terminals

MECHANICAL DATA

Case: JEDEC DO-214AC molded plastic body
Terminals: leads solderable per MIL-STD-750, Method 2026
Polarity: Color band denotes cathode end
Mounting Position: Any
Weight: 0.002 ounce, 0.07 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

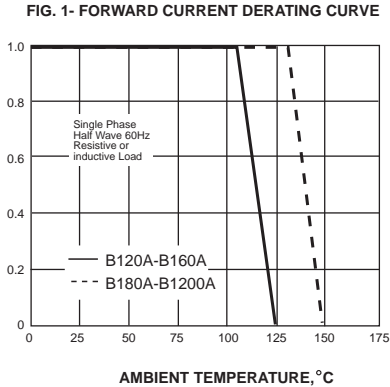
Ratings at 25°C ambient temperature unless otherwise specified.
 Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

| MDD Catalog Number | SYMBOLS | B120A | B130A | B140A | B150A | B160A | B180A | B1A0A | B1150A | B1200A | UNITS | |
|---|-----------------|-------------|-------|-------|-------|-------|-------------|-------|--------|--------|-------|------|
| Maximum repetitive peak reverse voltage | V_{RRM} | 20 | 30 | 40 | 50 | 60 | 80 | 100 | 150 | 200 | VOLTS | |
| Maximum RMS voltage | V_{RMS} | 14 | 21 | 28 | 35 | 42 | 56 | 70 | 105 | 140 | VOLTS | |
| Maximum DC blocking voltage | V_{DC} | 20 | 30 | 40 | 50 | 60 | 80 | 100 | 150 | 200 | VOLTS | |
| Maximum average forward rectified current at T_L (see fig. 1) | $I_{(AV)}$ | 1.0 | | | | | | | | | Amp | |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) | I_{FSM} | 30.0 | | | | | | | | | Amps | |
| Maximum instantaneous forward voltage at 1.0A | V_F | 0.45 | 0.55 | 0.70 | | 0.85 | | 0.95 | | | Volts | |
| Maximum DC reverse current at rated DC blocking voltage | I_R | 0.5 | | | | | | | 0.2 | | mA | |
| | | 10.0 | | | | | 5.0 | | 2.0 | | | |
| Typical junction capacitance (NOTE 1) | C_J | 110 | | | 90 | | | | | | pF | |
| Typical thermal resistance (NOTE 2) | $R_{\theta JA}$ | 88.0 | | | | | | | | | | °C/W |
| Operating junction temperature range | T_J | -50 to +125 | | | | | -50 to +150 | | | | | °C |
| Storage temperature range | T_{STG} | -50 to +150 | | | | | | | | | | °C |

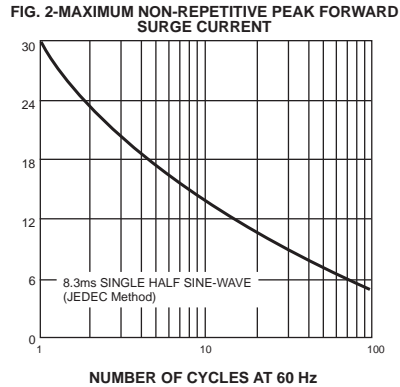
Note: 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
 2. P.C.B. mounted with 0.2x0.2" (5.0x5.0mm) copper pad areas

RATINGS AND CHARACTERISTIC CURVES B120A THRU B1200A

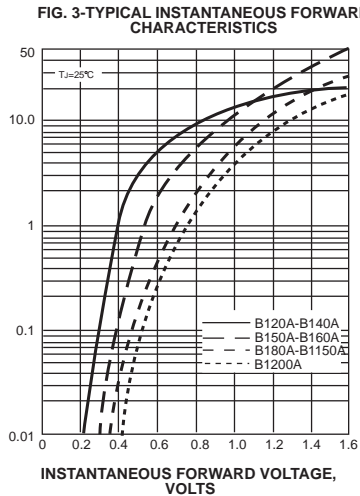
AVERAGE FORWARD RECTIFIED CURRENT,
AMPERES



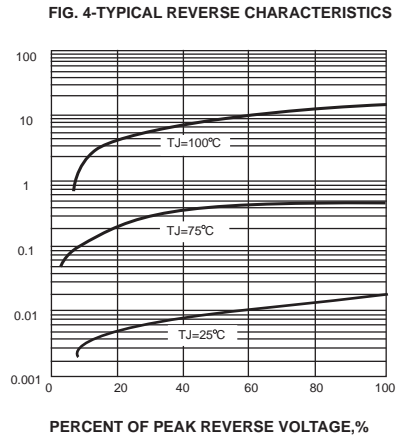
PEAK FORWARD SURGE CURRENT,
AMPERES



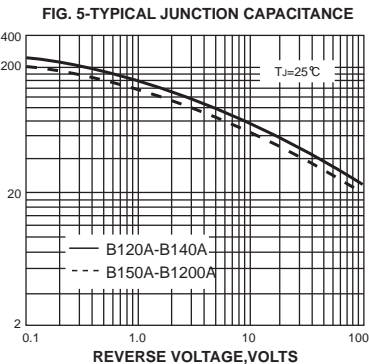
INSTANTANEOUS FORWARD CURRENT, AMPERES



INSTANTANEOUS REVERSE CURRENT,
MILLIAMPERES



JUNCTION CAPACITANCE, pF



TRANSIENT THERMAL IMPEDANCE,
°C/W

