



CHENMKO ENTERPRISE CO.,LTD

BAV70BPT

SURFACE MOUNT

FAST SWITCHING DIODE

VOLTAGE RANGE 100 Volts CURRENT 150 mAmpere

Lead free devices

FEATURES

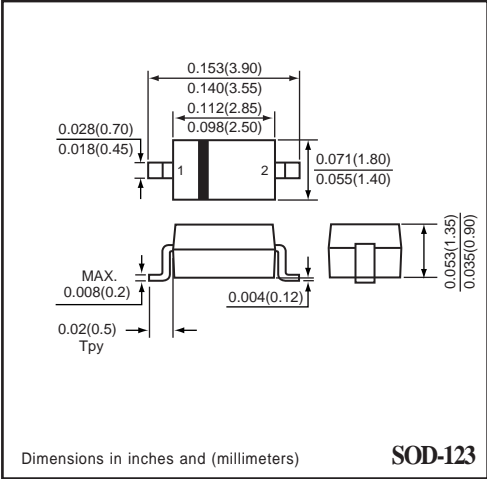
- * Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- * For surface mounted applications
- * Low profile package
- * Built-in strain relief
- * Low power loss, high efficiency
- * High current capability, low forward voltage drop
- * Power dissipation: 350mW
- * Repetitive peak forward surge current: 450mA
- * High temperature soldering guaranteed : 260°C/10 seconds at terminals

MECHANICAL DATA

Case: JEDEC SOD-123 molded plastic
Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
Polarity: Color band denotes cathode end
Weight: 0.001 ounce 0.032 gram

MARKING

* S1



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

MAXIMUM RATINGS (At TA = 25°C unless otherwise noted)

| RATINGS | SYMBOL | BAV70BPT | UNITS |
|---|-----------|-------------|--------|
| Maximum Recurrent Peak Reverse Voltage | VRRM | 100 | Volts |
| Maximum RMS Voltage | VRMS | 53 | Volts |
| Maximum DC Blocking Voltage | VDC | 75 | Volts |
| Maximum Average Forward Rectified Current at TL = 100°C | IO | 150 | mAmps |
| Non-Repetitive Peak Forward Surge Current | @ t=1.0uS | 2.0 | Amps |
| | @ t=1.0S | 1.0 | |
| Typic Junction Capacitance (Note 2) | CJ | 2.0 | pF |
| Maximum Reverse Recovery Time (Note 3) | TRR | 4.0 | nS |
| Typical Thermal Resistance (Note 1) | R θJA | 357 | °C / W |
| Storage and Operating Temperature Range | TJ, TSTG | -65 to +150 | °C |

ELECTRICAL CHARACTERISTICS (At TA = 25°C unless otherwise noted)

| CHARACTERISTICS | SYMBOL | BAV70BPT | UNITS |
|--|--------|-----------------------|-------|
| Maximum Instantaneous Forward Voltage | VF | @ IF = 1.0 mA | 0.715 |
| | | @ IF = 10 mA | 0.855 |
| | | @ IF = 50 mA | 1.00 |
| | | @ IF = 150 mA | 1.25 |
| Maximum Average Reverse Current at Rated DC Blocking Voltage | IR | @ VR = 20 V | 25 |
| | | @ VR = 25 V, TJ=150°C | 30 |
| | | @ VR = 75 V | 2.5 |
| | | @ VR = 75 V, TJ=150°C | 50 |

NOTES : 1. Thermal Resistance (Junction to Lead) : PC Board Mounted on 0.06 X 0.06" (0.15X 0.15mm) copper pad area.
 2. Measured at 1.0 MHz and applied reverse voltage of 0 volt.
 3. IF=IR=10 mA, IRR=0.1XIR, RL=100 ohms

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RATING CHARACTERISTIC CURVES (BAV70BPT)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

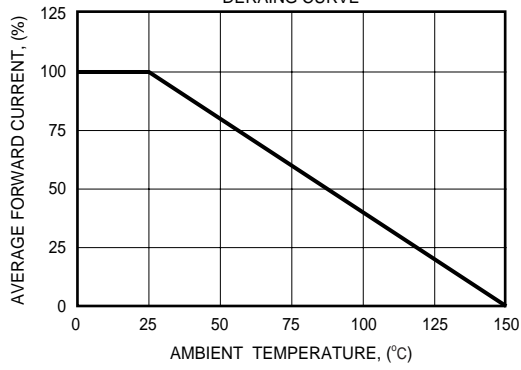


FIG. 2 - FORWARD CHARACTERISTICS

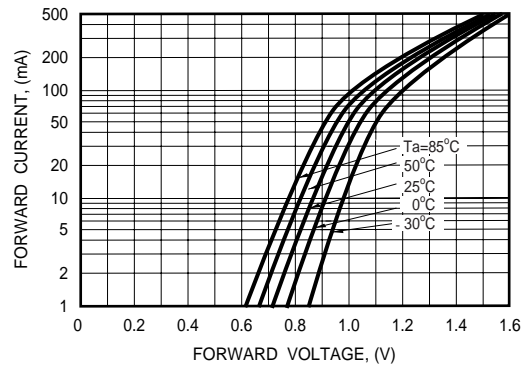


FIG. 3 - TYPICAL JUNCTION CAPACITANCE

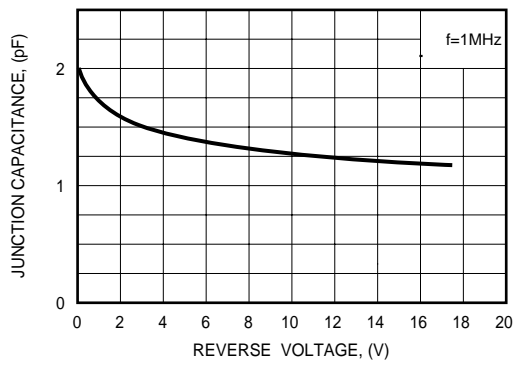


FIG. 4 - REVERSE CHARACTERISTICS

