



CHENMKO ENTERPRISE CO.,LTD

**SURFACE MOUNT
SWITCHING DIODE**

VOLTAGE 75 Volts CURRENT 0.15 Ampere

BD4148N1APT

Lead free devices

APPLICATION

* Ultra high speed switching

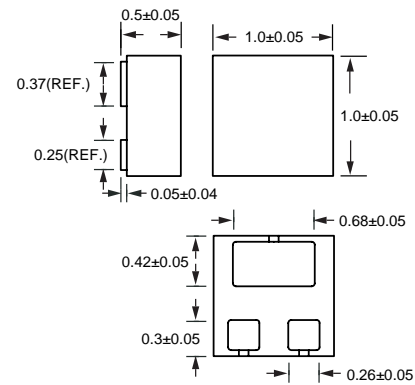
FEATURE

- * SmaBD surface mounting type. (FBPT-923)
- * High speed. (TRR=4.0nSec Typ.)
- * Suitable for high packing density.
- * Peak forward current is 500mA.

CONSTRUCTION

* Silicon epitaxial planar

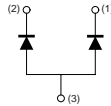
FBPT-923



Dimensions in millimeters

FBPT-923

CIRCUIT



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

| RATINGS | SYMBOL | BD4148N1APT | UNITS |
|--|---------------------|-------------|-------|
| Maximum Non-Repetitive Peak Reverse Voltage | VRM | 100 | Volts |
| Maximum Repetitive Peak Reverse Voltage Maximum Working Peak Reverse Voltage Maximum DC Blocking Voltage | VRRM VRWM VDC | 75 | Volts |
| Maximum RMS Voltage | VRMS | 53 | Volts |
| Maximum Average Forward Rectified Current | Io | 0.15 | Amps |
| Peak Forward Surge Current at 1uSec. | @1Sec | 1.0 | Amps |
| | @1.0uSec | 2.0 | |
| Typical Junction Capacitance between Terminal (Note 1) | CJ | 4.0 | pF |
| Maximum Reverse Recovery Time (Note 2) | trr | 4.0 | nSec |
| Maximum Thermal Resistance | R #JA | 350 | °C/W |
| Maximum Operating and Storage Temperaturd Range | TJ,TSTG | -65 to +150 | °C |

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

| CHARACTERISTICS | SYMBOL | BD4148N1APT | UNITS |
|--|--------|-------------------|-------|
| Maximum Instantaneous Forward Voltage at IF= 10 mA | VF | 1.0 | Volts |
| Maximum Average Reverse Current | IR | VR= 20V @TJ=25°C | 5.0 |
| | | VR= 75V @TJ=25°C | 25 |
| | | VR= 20V @TJ=150°C | 30 |
| | | VR= 70V @TJ=150°C | 50 |

NOTES : 1. Measured at 1.0 MHz and applied reverse voltage of 0 volts.

2. Measured at applied forward current of 10 mA, reverse current of 1.0 mA, Reverse voltage of 6.0 volts and RL= 100 ohms.

3. ESD sensitive product handling required.

2006-07

RATING CHARACTERISTIC CURVES (BD4148N1APT)

FIG. 1 - FORWARD CHARACTERISTICS

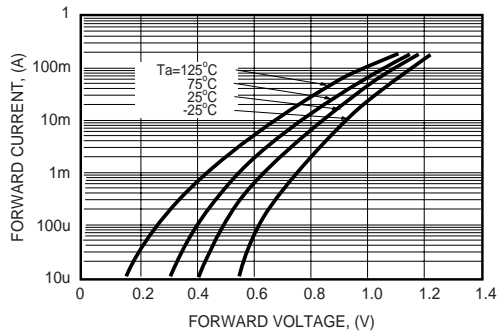


FIG. 2 - REVERSE CHARACTERISTICS

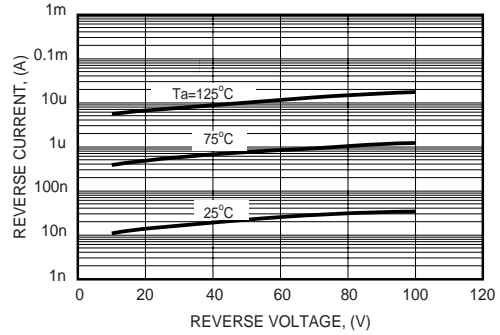


FIG. 3 - TYPICAL JUNCTION CAPACITANCE

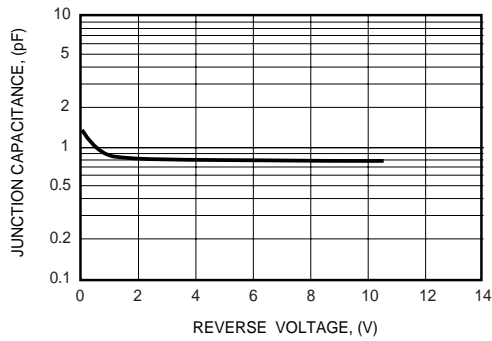


FIG. 4 - REVERSE RECOVERY TIME CHARACTERISTICS

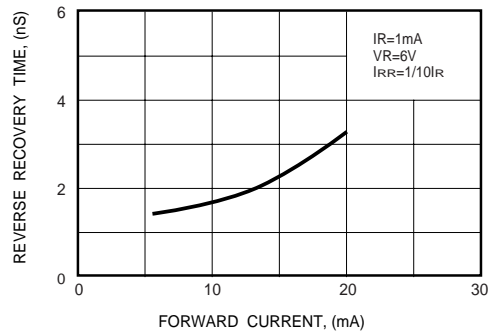


FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

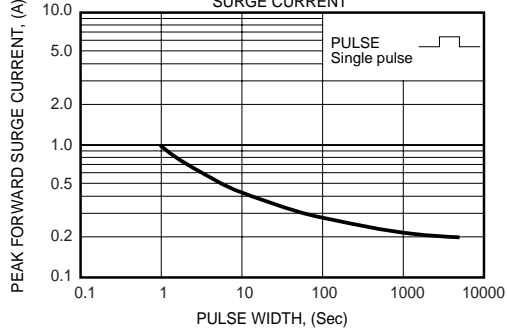


FIG. 6 - REVERSE RECOVERY TIME MEASUREMENT CIRCUIT

