



**CHENMKO ENTERPRISE CO.,LTD**

**BD4148N1PT**

**SURFACE MOUNT  
SWITCHING DIODE**

VOLTAGE 75 Volts CURRENT 0.15 Ampere

Lead free devices

**APPLICATION**

\* Ultra high speed switching

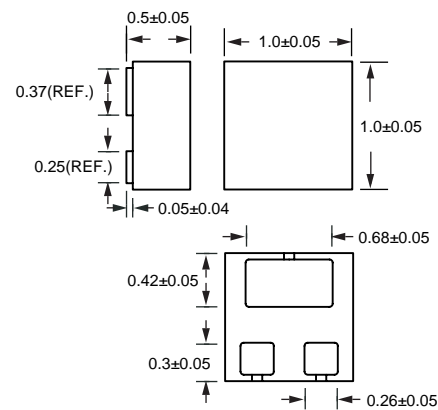
**FEATURE**

- \* 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

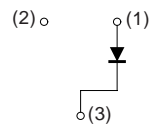
**FBPT-923**



Dimensions in millimeters

**FBPT-923**

**CIRCUIT**



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

| RATINGS  | SYMBOL              | BD4148N1PT  | UNITS |
|--|---------------------|-------------|-------|
| Maximum Non-Repetitive Peak Reverse Voltage  | VRM                 | 100         | Volts |
| Maximum Repetitive Peak Reverse Voltage<br>Maximum Working Peak Reverse Voltage<br>Maximum DC Blocking Voltage | VRRM<br>VRRM<br>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 | BD4148N1PT        | 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 froward 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 ( BD4148N1PT )

FIG. 1 - FORWARD CHARACTERISTICS

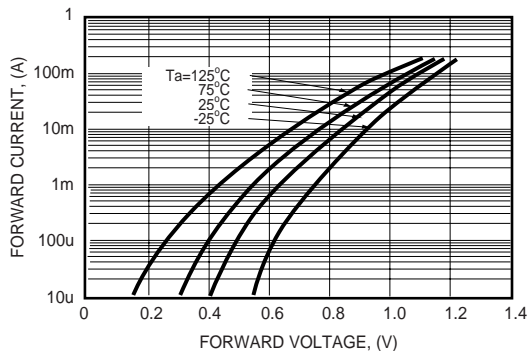


FIG. 2 - REVERSE CHARACTERISTICS

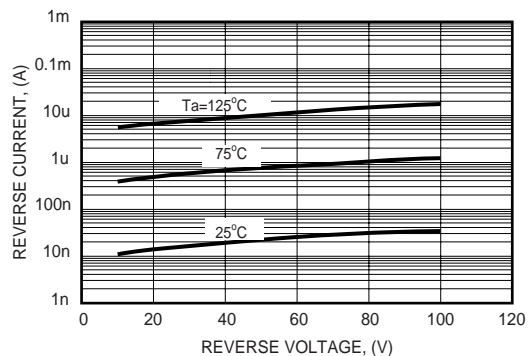


FIG. 3 - TYPICAL JUNCTION CAPACITANCE

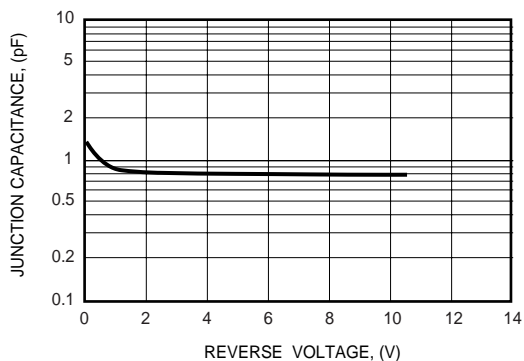


FIG. 4 - REVERSE RECOVERY TIME CHARACTERISTICS

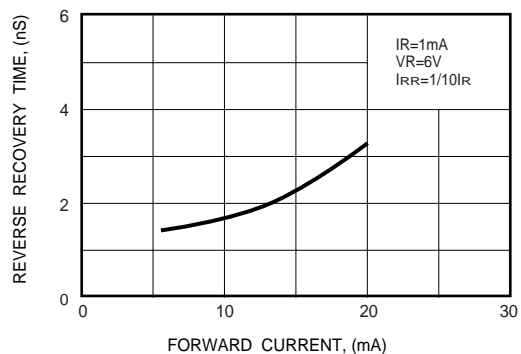


FIG. 5 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

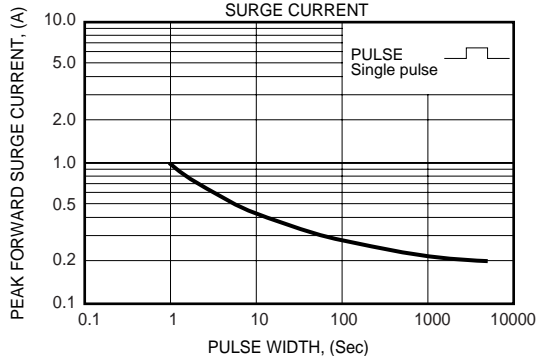


FIG. 6 - REVERSE RECOVERY TIME MEASUREMENT CIRCUIT

