



**CHENMKO ENTERPRISE CO.,LTD**

**SURFACE MOUNT**

**SWITCHING DIODE**

**VOLTAGE 350 Volts CURRENT 225 mAmpere**

**CHBD3004BPT**

*Lead free devices*

**APPLICATION**

- \* Ultra high speed switching

**FEATURE**

- \* Small surface mounting type. (SOD-123)
- \* High speed. (TRR=50 nSec Typ.)
- \* Suitable for high packing density.
- \* Maximum total power dissipation is 350mW.
- \* Peak forward current is 625mA.
- \* High voltage capability.

**CONSTRUCTION**

- \* Silicon epitaxial planar

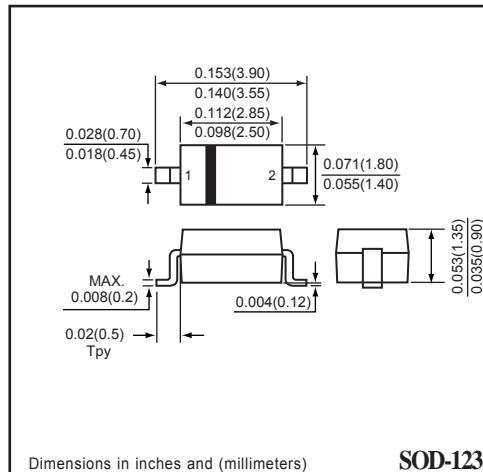
**MARKING**

- \* VC

**CIRCUIT**



**SOD-123**



**SOD-123**

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

RATINGS	SYMBOL	CHBD3004BPT	UNITS
Maximum Recurrent Peak Reverse Voltage	VR <sub>RM</sub>	350	Volts
Maximum RMS Voltage	VR <sub>M</sub>	212	Volts
Maximum DC Blocking Voltage	V <sub>DC</sub>	300	Volts
Maximum Average Forward Rectified Current	I <sub>o</sub>	225	mAmps
Peak Forward Surge Current	I <sub>FSM</sub>	4.0	Amps
@T <sub>P</sub> = 1uSec @T <sub>P</sub> = 1Sec		1.0	
Typical Junction Capacitance between Terminal (Note 1)	C <sub>J</sub>	5.0	pF
Maximum Reverse Recovery Time (Note 2)	TRR	50	nSec
Typical Thermal Resistance	R <sub>θJA</sub>	357	°C/W
Operation and Storage Temperature Range	T <sub>J,TSTG</sub>	-65 to +150	°C

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

CHARACTERISTICS	SYMBOL	CHBD3004BPT	UNITS
Reverse Breakdown Voltage at I <sub>R</sub> = 150uA	BV <sub>R</sub>	350 Min.	Volts
Maximum Instantaneous Forward Voltage at I <sub>F</sub> = 100mA	V <sub>F</sub>	1.0	Volts
Maximum Average Reverse Current at V <sub>R</sub> = 240V	I <sub>R</sub>	100	nAmps
		100	uAmps

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

2. Measured at applied forward current of 30mA ,reverse current of 30mA ,R<sub>L</sub>=100 Ω and recovery to I<sub>RR</sub>=3mA.

3. ESD sensitive product handling required.

2004-10

## RATING CHARACTERISTIC CURVES ( CHBD3004BPT)

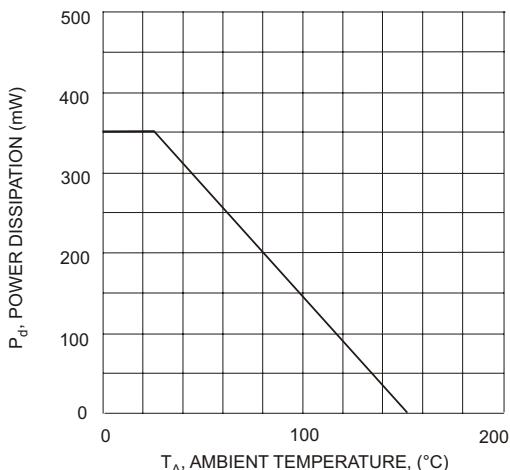


Fig. 1 Power Derating Curve, total package

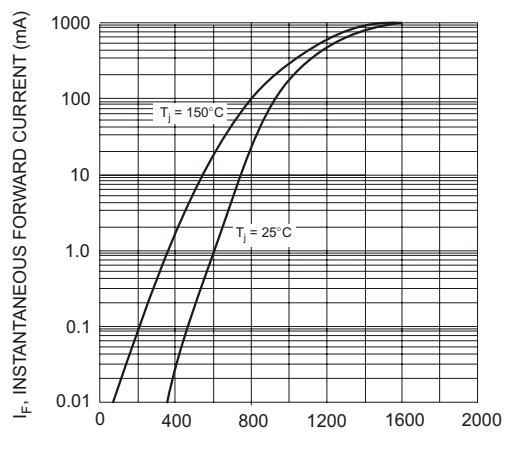


Fig. 2 Typical Forward Characteristics, per element

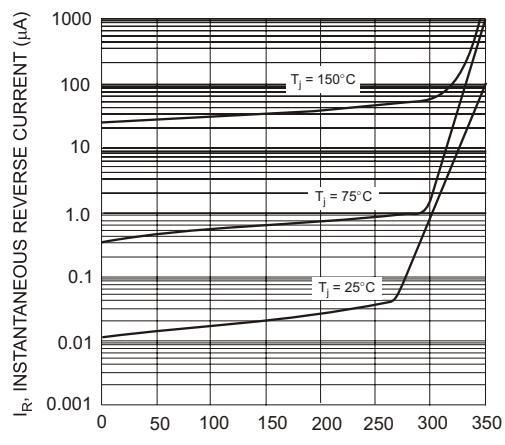


Fig. 3 Typical Reverse Characteristics, per element

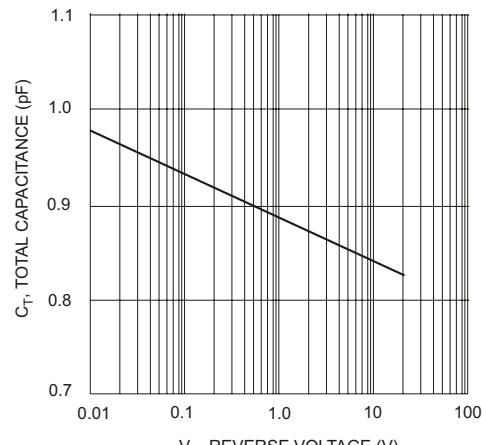


Fig. 4 Typical Total Capacitance vs. Reverse Voltage, per element