



# CHENMKO ENTERPRISE CO.,LTD

## SURFACE MOUNT SWITCHING DIODE

VOLTAGE 250 Volts CURRENT 0.2 Ampere

CHBD1004SPT

Lead free devices

### APPLICATION

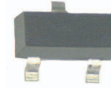
- \* Ultra high speed switching

### FEATURE

- \* Small surface mounting type. (SOT-23)
- \* High speed. (TRR=50 nSec Typ.)
- \* Suitable for high packing density.
- \* Maximum total power dissipation is 350mW.
- \* High voltage capability.

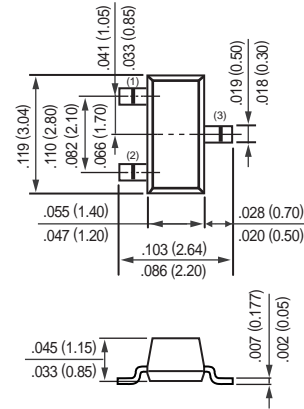
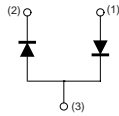
### MARKING

- \* 10A



SOT-23

### CIRCUIT



SOT-23

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

RATINGS	SYMBOL	CHBD1004SPT	UNITS
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	250	Volts
Maximum Average Forward Rectified Current	I <sub>O</sub>	0.2	Amps
Peak Forward Surge Current at	@ T <sub>P</sub> = 1uSec	9.0	Amps
	@ T <sub>P</sub> = 100uSec	3.0	
Maximum Reverse Recovery Time (Note 1)	T <sub>RR</sub>	50	nSec
Typical Thermal Resistance	R <sub>θJA</sub>	357	°C/W
Operation and Storage Temperature Range	T <sub>J</sub> ,T <sub>STG</sub>	-55 to +150	°C

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

CHARACTERISTICS	SYMBOL	CHBD1004SPT	UNITS
Reverse Breakdown Voltage at I <sub>R</sub> = 100uA	B <sub>V</sub> R	250 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	@ T <sub>A</sub> = 25°C	100	nAmps
	@ T <sub>A</sub> = 150°C	100	uAmps

NOTES : 1. 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.  
2. ESD sensitive product handling required.

2008-01

## RATING CHARACTERISTIC CURVES ( CHBD1004SPT )

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURRENT

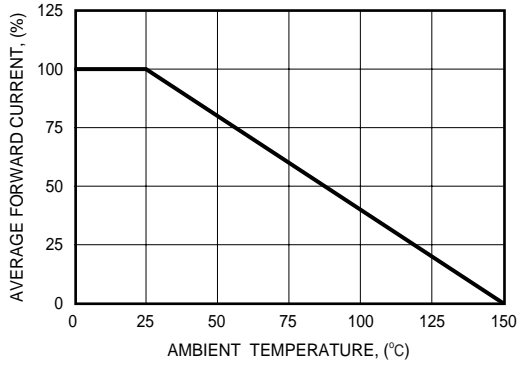


FIG. 2 - FORWARD CHARACTERISTICS

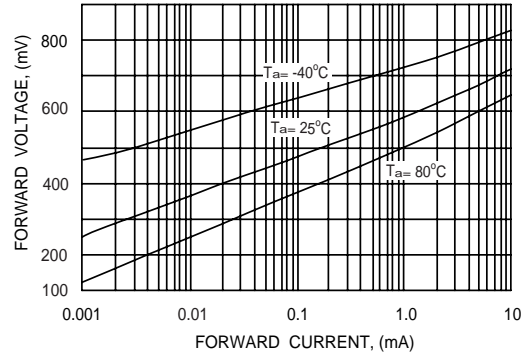


FIG. 3 - REVERSE CHARACTERISTICS

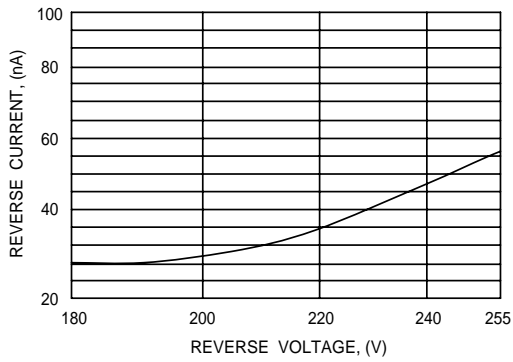


FIG. 4 - TYPICAL JUNCTION CAPACITANCE

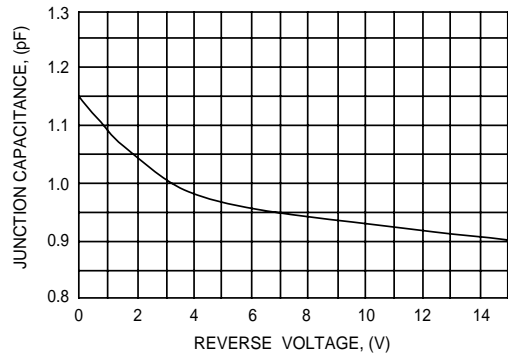


FIG. 5 - REVERSE RECOVERY TIME

