CHENMKO ENTERPRISE CO.,LTD

CHBD2004N1PT

SURFACE MOUNT
SWITCHING DIODE
VOLTAGE 300 Volts CURRENT 0.2 Ampere

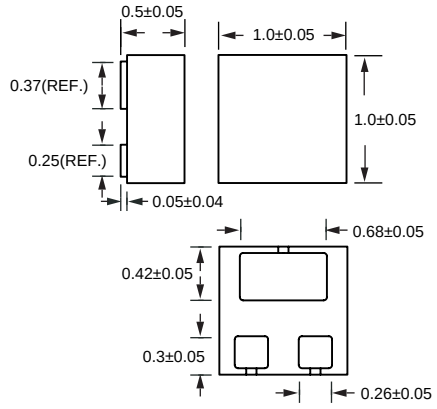
Lead free devices

APPLICATION
* Ultra high speed switching

FEATURE
* Small surface mounting type. (FBPT-923)
* High speed. (T_{RR}=50 nSec Typ.)
* Suitable for high packing density.
* Peak forward current is 625mA.
* High voltage capability.

CONSTRUCTION
* Silicon epitaxial planar

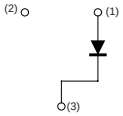
FBPT-923



Dimensions in millimeters

FBPT-923

CIRCUIT



MAXIMUM RATINGES (At T_A = 25°C unless otherwise noted)

RATINGS		SYMBOL	CHBD2004N1PT	UNITS
Maximum Recurrent Peak Reverse Voltage		V_{RRM}	300	Volts
Maximum RMS Voltage		V_{RMS}	210	Volts
Maximum DC Blocking Voltage		V_{DC}	240	Volts
Maximum Average Forward Rectified Current		I_O	0.2	Amps
Peak Forward Surge Current at 1mSec.	@T_P= 1mSec	I_{FSM}	4.0	Amps
	@T_P= 1Sec		1.0	
Typical Junction Capacitance between Terminal (Note 1)		C_J	5.0	pF
Maximum Reverse Recovery Time (Note 2)		T_{RR}	50	nSec
Typical Thermal Resistance		$R_{\theta JA}$	357	°C/W
Operation and Storage Temperature Range		T_J,T_{STG}	-65 to +150	°C

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

CHARACTERISTICS		SYMBOL	CHBD2004N1PT	UNITS
Reverse Breakdown Voltage at I_R= 100uA		BV_R	300 Min.	Volts
Maximum Instantaneous Forward Voltage at I_F= 100mA		V_F	1.0	Volts
Maximum Average Reverse Current at V_R= 240V	@T_A= 25°C	I_R	100	nAmps
	@T_A= 150°C		100	uAmps

2006-07

NOTES : 1. Measured at 1.0 MHz and applied reverse voltage of 0 volts.
2. Measured at applied froward current of 30mA ,reverse current of 30mA ,R_L=100 Ω and recovery to I_{RR}=-3mA.
3. ESD sensitive product handling required.

RATING CHARACTERISTIC CURVES (CHBD2004N1PT)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURRENT

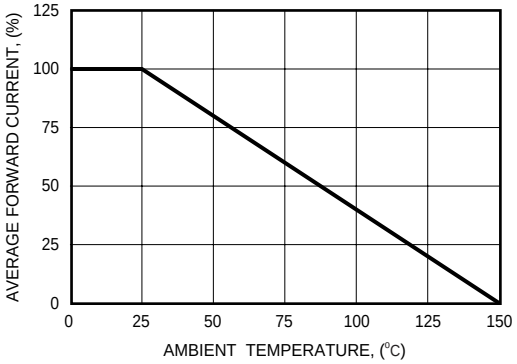


FIG. 2 - FORWARD CHARACTERISITICS

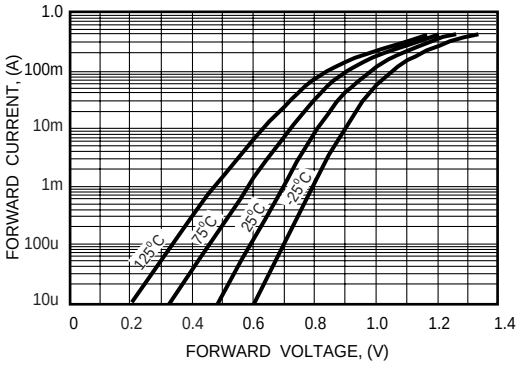


FIG. 3 - REVERSE CHARACTERISTICS

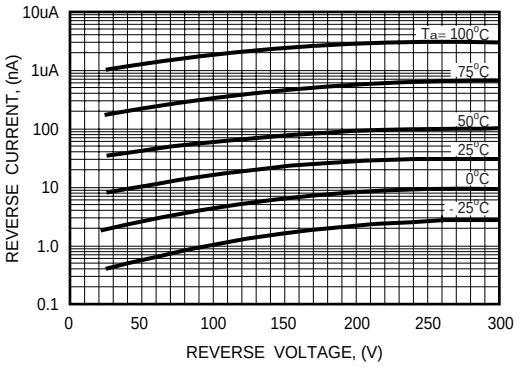


FIG. 4 - TYPICAL JUNCTION CAPACITANCE

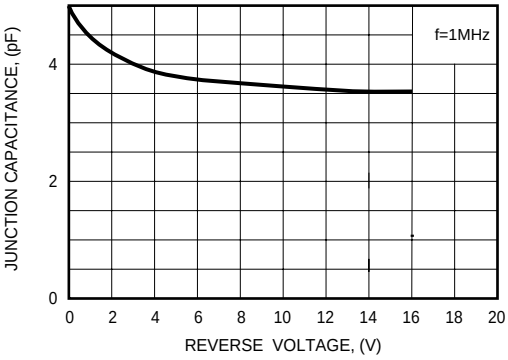


FIG. 5 - REVERSE RECOVERY TIME

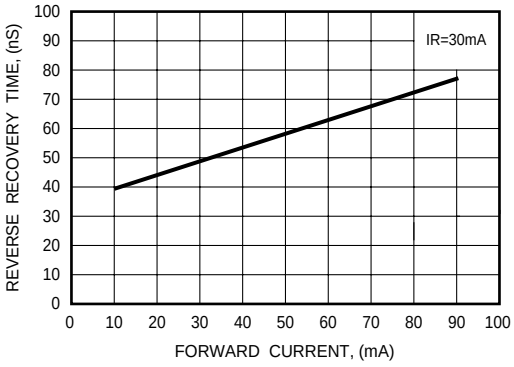


FIG. 6 - REVERSE RECOVERY TIME MEASUREMENT CIRCUIT