CHENMKO ENTERPRISE CO.,LTD

SURFACE MOUNT

SWITCHING DIODE

VOLTAGE 350 Volts CURRENT 225 mAmpere

CHBD3004SPT

Lead free devices

APPLICATION

* Ultra high speed switching

FEATURE

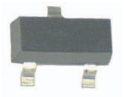
* Small surface mounting type. (SOT-23)
* High speed. (T_{RR}=50 nSec Typ.)
* Suitable for high packing density.
* Maximum total power disspation is 350mW.
* Peak forward current is 625mA.
* High voltage capability.

CONSTRUCTION

* Silicon epitaxial planar

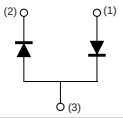
MARKING

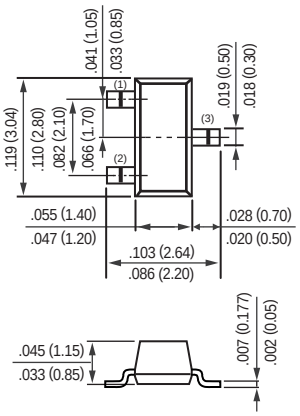
* LD9



SOT-23

CIRCUIT





Dimensions in inches and (millimeters)

SOT-23

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

RATINGS		SYMBOL	CHBD3004SPT	UNITS
Maximum Recurrent Peak Reverse Voltage		V_{RRM}	350	Volts
Maximum RMS Voltage		V_{RMS}	212	Volts
Maximum DC Blocking Voltage		V_{DC}	300	Volts
Maximum Average Forward Rectified Current		I_O	225	mAmps
Peak Forward Surge Current	@T_P= 1uSec	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	CHBD3004SPT	UNITS
Reverse Breakdown Voltage at I_R= 150uA		BV_R	350 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

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.

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RATING CHARACTERISTIC CURVES (CHBD3004SPT)

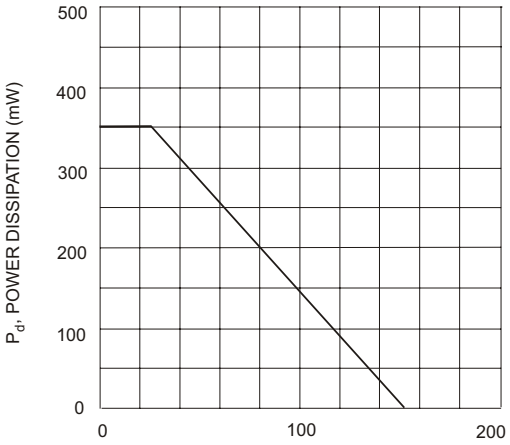

Fig. 1 Power Derating Curve, total package

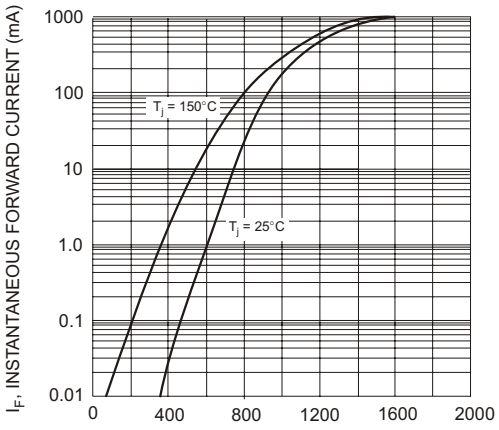

Fig. 2 Typical Forward Characteristics, per element

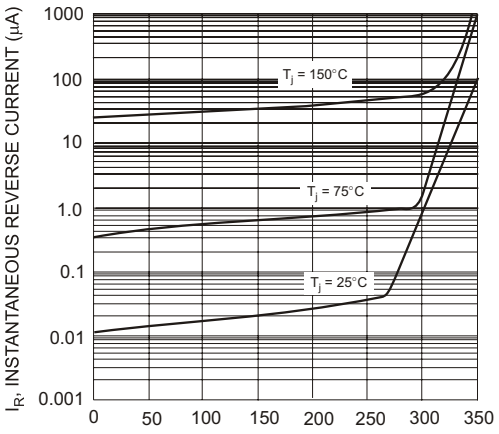

Fig. 3 Typical Reverse Characteristics, per element

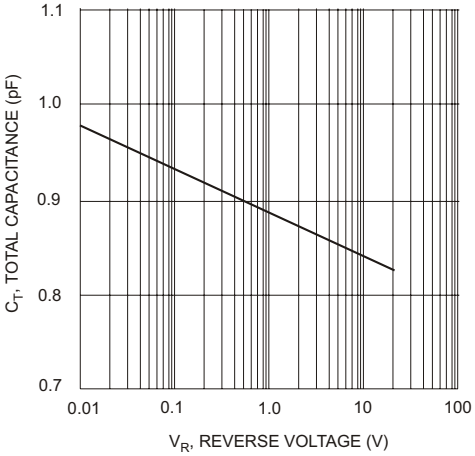

Fig. 4 Typical Total Capacitance vs. Reverse Voltage, per element