CHENMKO ENTERPRISE CO.,LTD

SURFACE MOUNT

SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE 40 - 60 Volts CURRENT 15 mAmperes

CH140BPT

THRU

CH160BPT

Lead free devices

APPLICATION

* Ultra high speed switching

FEATURE

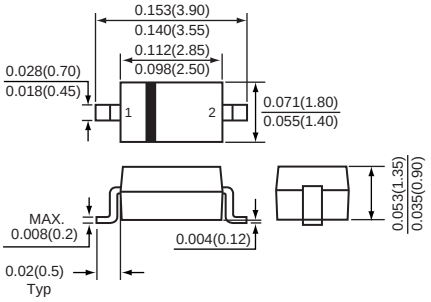
* Small surface mounting type. (SOD-123)
* High speed. (T_{RR}=1.0nSec Typ.)
* Maximum total power disspation is 400mW.

CONSTRUCTION

* Silicon epitaxial planar

CIRCUIT

SOD-123



Dimensions in inches and (millimeters)

SOD-123

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

RATINGS	SYMBOL	CH140BPT	CH150BPT	CH160BPT	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	40	50	60	Volts
Maximum RMS Voltage	V_{RMS}	28	35	42	Volts
Maximum DC Blocking Voltage	V_{DC}	40	50	60	Volts
Forward Continuous Current	I_{FM}	15			mAmps
Peak Forward Surge Current 10 uS single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	2.0			Amps
Typical Thermal Resistance (Note 1)	$R_{\theta JA}$	300			°C / W
Total Capacitance (Note 2)	C_T	2.2	2.1	2.0	pF
Reverse Recovery Time at IF=IR=5.0mA , Irr=0.5mA	T_{rr}	1.0			nS
Operating Temperature Range	T_J	-55 to +125			°C
Storage Temperature Range	T_{STG}	-55 to +125			°C

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

CHARACTERISTICS		SYMBOL	CH140BPT	CH150BPT	CH160BPT	UNITS
Maximum Instantaneous Forward Voltage	@ I_F = 1.0mA	V_F	390	400	410	mVolts
	@ I_F = 15mA		900	950	1000	mVolts
Maximum Average Reverse Current at Rated DC Blocking Voltage		I_R	200	200	200	nAmps

NOTES : 1. Thermal Resistance (Junction to Lead) : PC Board Mounted on 0.2 X 0.2" (5 X 5mm) copper pad area.
2. Measured at 1.0 MHz and applied reverse voltage of 0 volts.

2004-06

RATING CHARACTERISTIC CURVES (CH140BPT THRU CH160BPT)

FIG. 1 - FORWARD CHARACTERISTICS

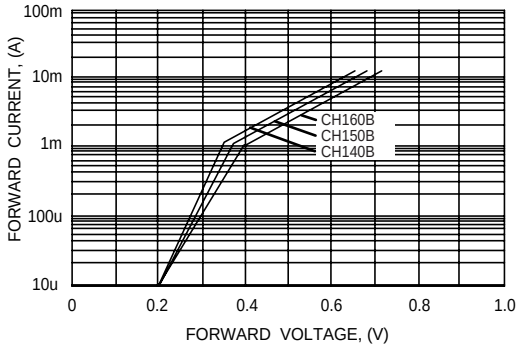


FIG. 2 - TOTAL CAPACITANCE V.S REVERSE VOLTAGE

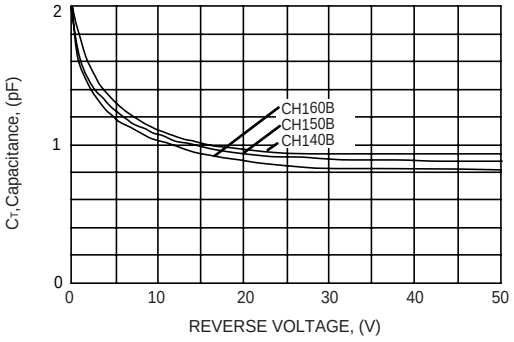


FIG. 3 - REVERSE CHARACTERISTICS

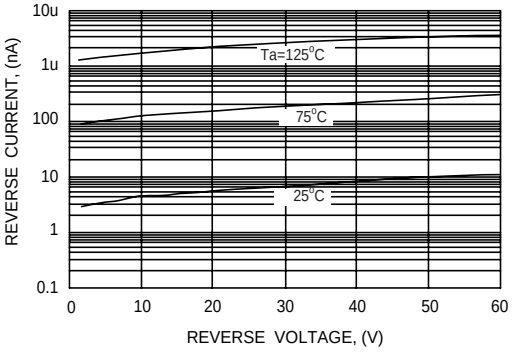
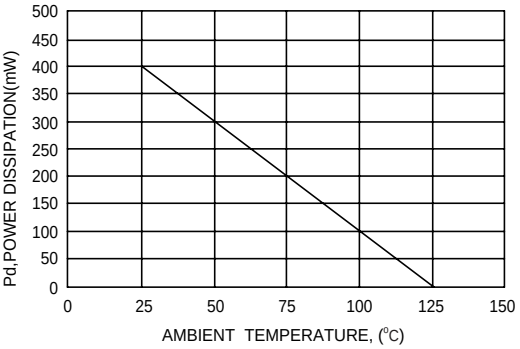



FIG. 4 - TYPICAL POWER DERATING CURVE