



**CHENMKO ENTERPRISE CO.,LTD**

*Halogens free devices*

**SURFACE MOUNT**

SCHOTTKY BARRIER DIODE

VOLTAGE 45 Volts CURRENT 0.1 Ampere

**CH501S-40GP**

**APPLICATION**

- \* Low power rectification

**FEATURE**

- \* Small surface mounting type. (SC-79/SOD-523)
- \* Low VF. (VF=0.43V Typ. at 100mA)
- \* High reliability

**CONSTRUCTION**

- \* Silicon epitaxial planar

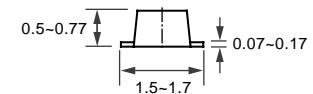
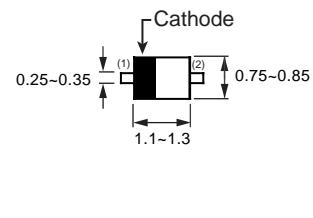
**MARKING**

- \* A

**CIRCUIT**



**SC-79/SOD-523**



Dimensions in millimeters

**SC-79/SOD-523**

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

RATINGS	SYMBOL	CH501S-40GP	UNITS
Maximum Recurrent Peak Reverse Voltage	VR <sub>RM</sub>	45	Volts
Maximum RMS Voltage	V <sub>RMS</sub>	32	Volts
Maximum DC Blocking Voltage	V <sub>D</sub> C	40	Volts
Maximum Average Forward Rectified Current	I <sub>O</sub>	0.1	Amps
Peak Forward Surge Current at 8.3 mSec single half sine-wave	I <sub>FSM</sub>	1.0	Amps
Typical Junction Capacitance between Terminal (Note 1)	C <sub>J</sub>	6.0	pF
Maximum Operating Temperature Range	T <sub>J</sub>	+125	°C
Storage Temperature Range	T <sub>STG</sub>	-40 to +125	°C

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

CHARACTERISTICS	SYMBOL	CH501S-40GP	UNITS
Maximum Instantaneous Forward Voltage at I <sub>F</sub> (1)= 10mA	V <sub>F</sub> (1)	0.34	Volts
Maximum Instantaneous Forward Voltage at I <sub>F</sub> (2)= 100mA	V <sub>F</sub> (2)	0.55	Volts
Maximum Average Reverse Current at V <sub>R</sub> = 10V	I <sub>R</sub>	30	uAmps

NOTES : 1. Measured at 1.0 MHz and applied reverse voltage of 10.0 volts.  
2. ESD sensitive product handling required.

2002-5

## RATING CHARACTERISTIC CURVES ( CH501S-40GP )

FIG. 1 - FORWARD CHARACTERISTICS

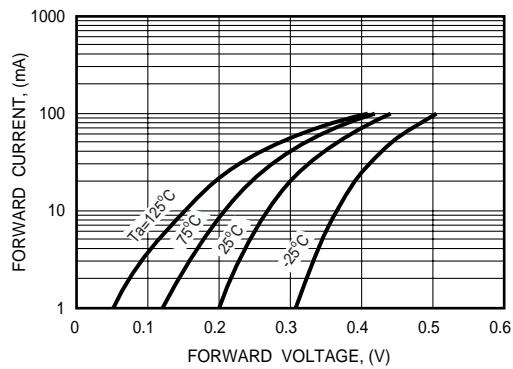


FIG. 2 - REVERSE CHARACTERISTICS

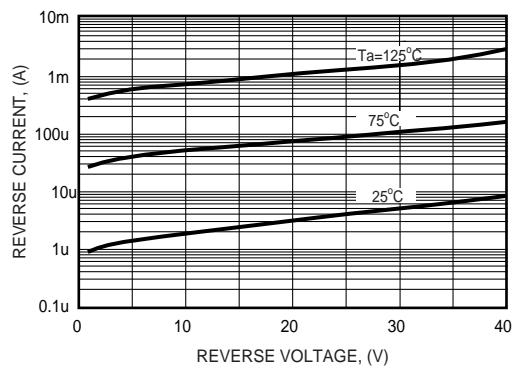


FIG. 3 - TYPICAL JUNCTION CAPACITANCE

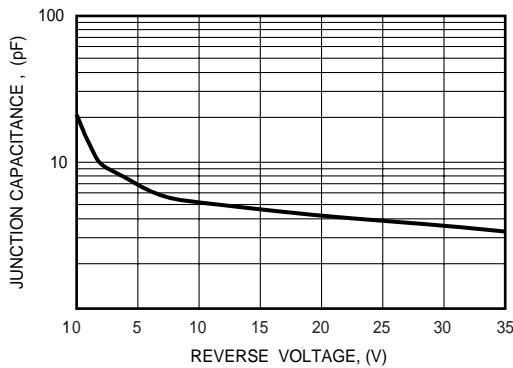


FIG. 4 - TYPICAL FORWARD CURRENT DERATING CURVE

