# CHENMKO ENTERPRISE CO.,LTD

## SURFACE MOUNT

SCHOTTKY BARRIER DIODE

VOLTAGE 30 Volts CURRENT 0.5 Ampere

**CH551S-30PT**

Lead free devices

### APPLICATION

* Ultra high-speed switching
* Voltage clamping
* Protection circuit
* Low current rectification
* Low power consumption applications

### FEATURE

* Small surface mounting type. (SC-79/SOD-523)
* Ultra low VF. (VF=0.41V Typ. at 0.5A)
* High reliability

### CONSTRUCTION

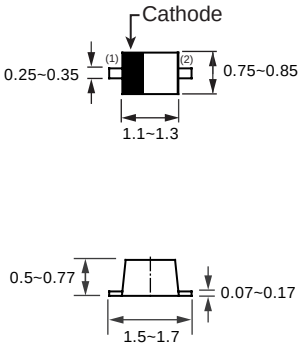
* Silicon epitaxial planar

### MARKING

* K

### CIRCUIT


SC-79/SOD-523




Dimensions in millimeters

SC-79/SOD-523

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

| RATINGS | SYMBOL | CH551S-30PT | UNITS |
|---|---|---|---|
| Maximum Recurrent Peak Reverse Voltage | $V_{RRM}$ | 30 | Volts |
| Maximum RMS Voltage | $V_{RMS}$ | 21 | Volts |
| Maximum DC Blocking Voltage | $V_{DC}$ | 20 | Volts |
| Maximum Average Forward Rectified Current | $I_O$ | 0.5 | Amps |
| Peak Forward Surge Current at 8.3 mSec single half sine-wave | $I_{FSM}$ | 2.0 | Amps |
| Typical Junction Capacitance between Terminal (Note 1) | $C_J$ | 15 | pF |
| Maximum Operating Temperature Range | $T_J$ | +125 | °C |
| Storage Temperature Range | $T_{STG}$ | -40 to +125 | °C |

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

| CHARACTERISTICS | SYMBOL | CH551S-30PT | UNITS |
|---|---|---|---|
| Maximum Instantaneous Forward Voltage at $I_F(1)$= 100mA | $V_F(1)$ | 0.36 | Volts |
| Maximum Instantaneous Forward Voltage at $I_F(2)$= 500mA | $V_F(2)$ | 0.47 | Volts |
| Maximum Average Reverse Current at $V_R$= 20V | $I_R$ | 100 | uAmps |

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

2004-9

# RATING CHARACTERISTIC CURVES ( CH551S-30PT )

FIG. 1 - FORWARD CHARACTERISTICS

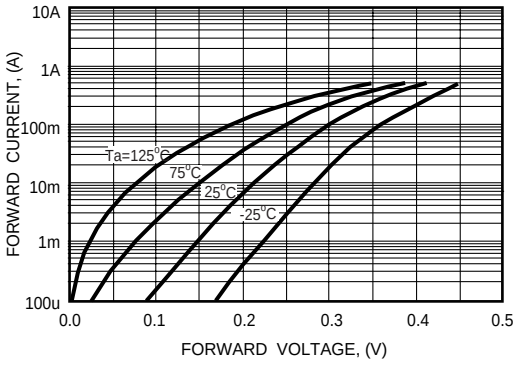



FIG. 2 - REVERSE CHARACTERISTICS

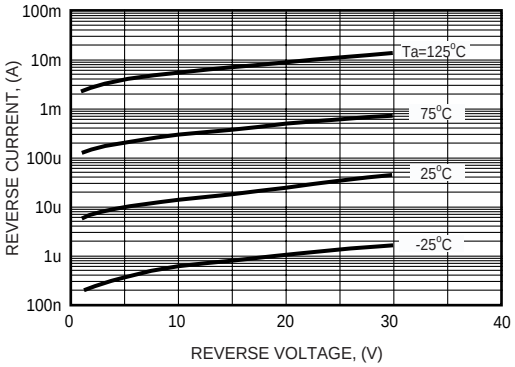



FIG. 3 - TYPICAL JUNCTION CAPACITANCE

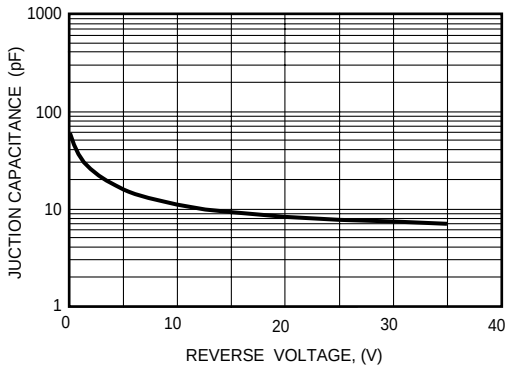



FIG. 4 - TYPICAL FORWARD CURRENT DERATING CURVE