



# CHENMKO ENTERPRISE CO.,LTD

## SURFACE MOUNT SWITCHING DIODE

VOLTAGE 90 Volts CURRENT 0.1 Ampere

### 1SS400PT

Lead free devices

#### APPLICATION

- \* Ultra high speed switching

#### FEATURE

- \* Small surface mounting type. (SC-79/SOD-523)
- \* High speed. ( $T_{RR}=1.2\text{nSec}$  Typ.)
- \* Suitable for high packing density.
- \* Peak forward current is 225mA.
- \* Lead free devices

#### CONSTRUCTION

- \* Silicon epitaxial planar

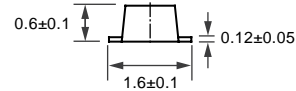
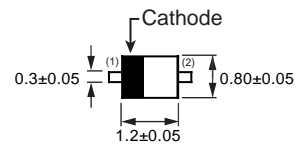
#### MARKING

- \* 6

#### CIRCUIT



SC-79/SOD-523



Dimensions in millimeters

SC-79/SOD-523

#### MAXIMUM RATINGS ( At $T_A = 25^\circ\text{C}$ unless otherwise noted )

| RATINGS  | SYMBOL    | 1SS400PT    | UNITS            |
|--|-----------|-------------|------------------|
| Maximum Recurrent Peak Reverse Voltage                 | $V_{RRM}$ | 90          | Volts            |
| Maximum RMS Voltage                                    | $V_{RMS}$ | 63          | Volts            |
| Maximum DC Blocking Voltage                            | $V_{DC}$  | 80          | Volts            |
| Maximum Average Forward Rectified Current              | $I_o$     | 0.1         | Amps             |
| Peak Forward Surge Current at 1Sec.                    | $I_{FSM}$ | 0.5         | Amps             |
| Typical Junction Capacitance between Terminal (Note 1) | $C_J$     | 3.0         | pF               |
| Maximum Reverse Recovery Time (Note 2)                 | $T_{RR}$  | 4.0         | nSec             |
| Maximum Operating Temperature Range                    | $T_J$     | +125        | $^\circ\text{C}$ |
| Storage Temperature Range                              | $T_{STG}$ | -55 to +125 | $^\circ\text{C}$ |

#### ELECTRICAL CHARACTERISTICS ( At $T_A = 25^\circ\text{C}$ unless otherwise noted )

| CHARACTERISTICS   | SYMBOL | 1SS400PT | UNITS            |
|---|--------|----------|------------------|
| Maximum Instantaneous Forward Voltage at $I_F = 100\text{mA}$ | $V_F$  | 1.20     | Volts            |
| Maximum Average Reverse Current at $V_R = 80\text{V}$         | $I_R$  | 0.1      | $\mu\text{Amps}$ |

- NOTES : 1. Measured at 1.0 MHz and applied reverse voltage of 0.5 volts.  
 2. Measured at applied forward current of 10mA , reverse voltage of 6.0 volts and  $R_L=100$  ohms.  
 3. ESD sensitive product handling required.

## RATING CHARACTERISTIC CURVES ( 1SS400PT )

FIG. 1 - SURGE CURRENT CHARACTERISTICS

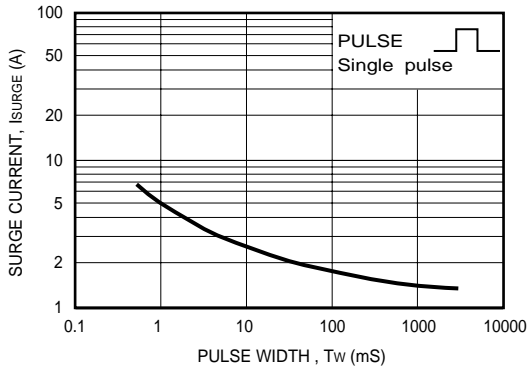


FIG. 2 - FORWARD CHARACTERISTICS

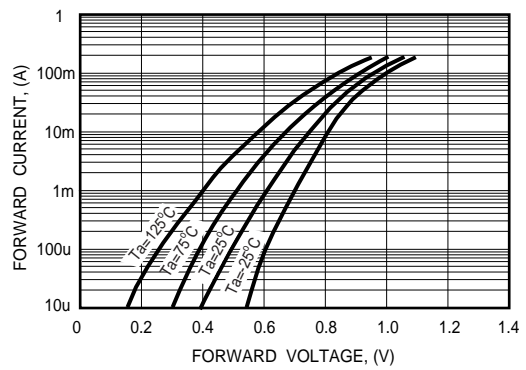


FIG. 3 - TYPICAL JUNCTION CAPACITANCE

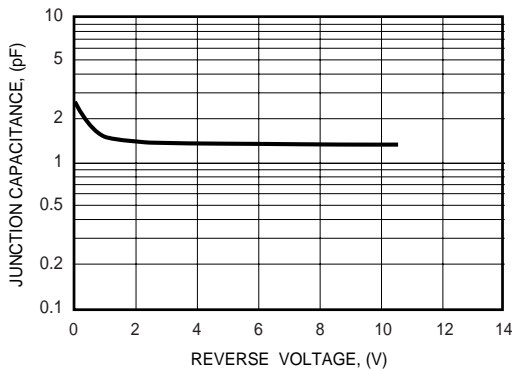


FIG. 4 - REVERSE CHARACTERISTICS

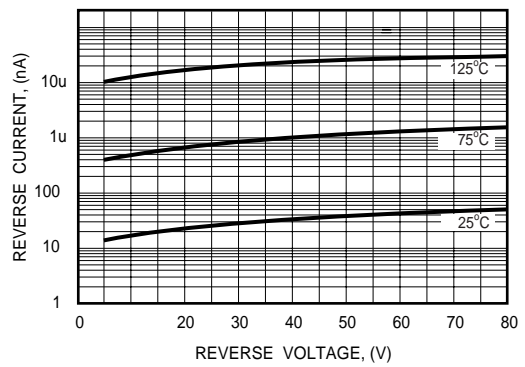


FIG. 5 - REVERSE RECOVERY TIME

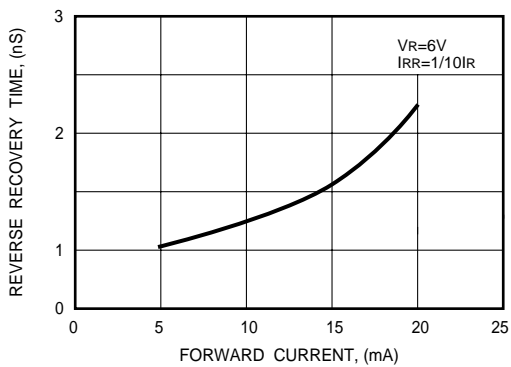


FIG. 6 - REVERSE RECOVERY TIME MEASUREMENT CIRCUIT

