# CHENMKO ENTERPRISE CO.,LTD

**MMPZ5225BAGP-A**

Halogens free devices

## SURFACE MOUNT ZENER

SILICON PLANAR POWER ZENER DIODES

VOLTAGE RANGE 3V

### FEATURE

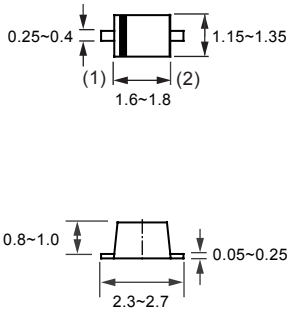
* High temperature soldering type.
* ESD rating of class 3(>16 kV) per human body model.
* Silicon planar zener diodes.
* Silcon-oxide passivated junction.
* Low temperature coefficient voltage
* 200 mW Rating on FR-4 or FR-5 Board

### MECHANICAL

* Voild-free, Transfer-molded, Thermosetting plastic case
* SOD-323S Packaging.
* Cathode indicated by polarity band.
* Mounting position: Any.

### CIRCUIT

SOD-323S




Dimensions in millimeters

SOD-323S

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

| RATINGS | SYMBOL | VALUE | UNITS |
|---|---|---|---|
| Zener Current ( see Table "Characteristics" ) | - | - | - |
| Max. Steady State Power Dissipation @$T_A$=25°C | $P_D$ | 200 | mW |
| Max. Operating Temperature Range | $T_J$ | -65 to +150 | °C |
| Storage Temperature Range | $T_{STG}$ | -65 to +150 | °C |

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

| CHARACTERISTICS | SYMBOL | MIN. | TYP. | MAX. | UNITS |
|---|---|---|---|---|---|
| Thermal Resistance Junction to Ambient | $R_{\theta JA}$ | - | - | 625 | °C/W |
| Max. Instantaneous Forward Voltage at $I_F$= 10mA | $V_F$ | - | - | 1.0 | Volts |

2011-08

NOTES :
1. The JEDEC type numbers listd have a standaerd tolerance on the normal zener voltage of +10%, Suffix B=+5%.
2. The zener impedance is derived from 1KHz AC voltage, which results when an AC current having an RMS value equal to 10% of DC zener current ($I_{ZT}$ or $I_{ZK}$) is superimposed on $I_{ZT}$ or $I_{ZK}$. Zener impedance is measured at two points to insure a sharp knee on the breakdown curve to eliminate unstable units.
3. Valid provided that electrodes at distance of 10mm from case are kept ambient temperature.
4. Measured under thermal equilibrium and DC test conditions.
5. The rating listd in the electrical characteristics table is maximum peak, non-repetitive, reverse surge current of 1/2 squa re wave or equivalent sine wave pulse of 1/120 second duration superimposed on the test current, $I_{ZT}$, per JEDEC registration.

## ELECTRICAL CHARACTERISTICS ( MMPZ5225BAGP-A )

| TYPE | Zener voltage $V_Z$ (V) @ $I_{ZT}$ | | | Test current | Maximum Zener impedance | | | Maximum reverse leakage current | |
|---|---|---|---|---|---|---|---|---|---|
| | Min | Nom | Max | | $Z_{ZT}$ at $I_{ZT}$ (Ω) | $Z_{ZK}$ (Ω) | at $I_{ZK}$ (mA) | $I_R$ (uA) | at $V_R$ (V) |
| | Volts | Volts | Volts | $I_{ZT}$ (mA) | | | | | |
| MMPZ5225BAGP-A | 2.85 | 3.0 | 3.15 | 5 | 100 | 564 | 1 | 9 | 1 |

## RATING CHARACTERISTIC CURVES ( MMPZ5225BAGP-A )

Fig.1 POWER DISSIPATION VS. AMBIENT TEMP.

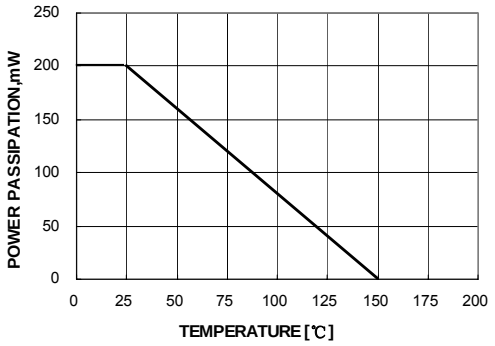



Fig.2 TYPICAL CAPACITANCE

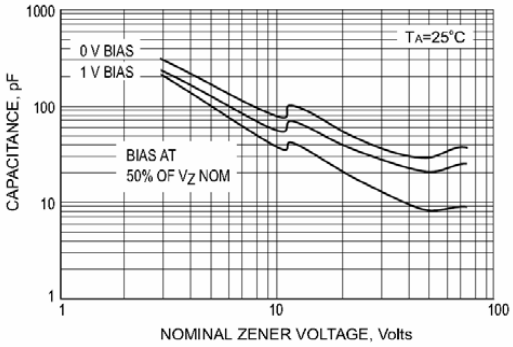



Fig.3 ZENER BREAKDOWN CHARACTERISTICS

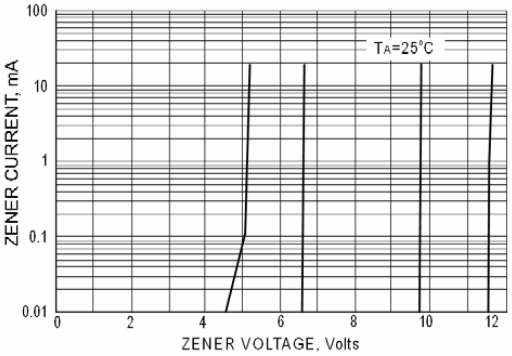
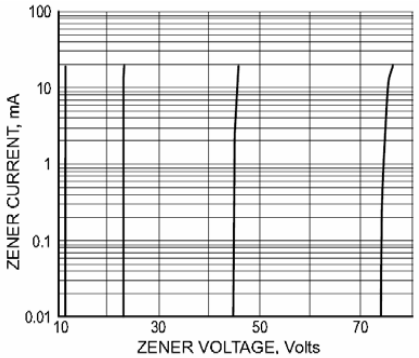



Fig.4 ZENER BREAKDOWN CHARACTERISTICS



**CHENMKO ENTERPRISE CO.,LTD**

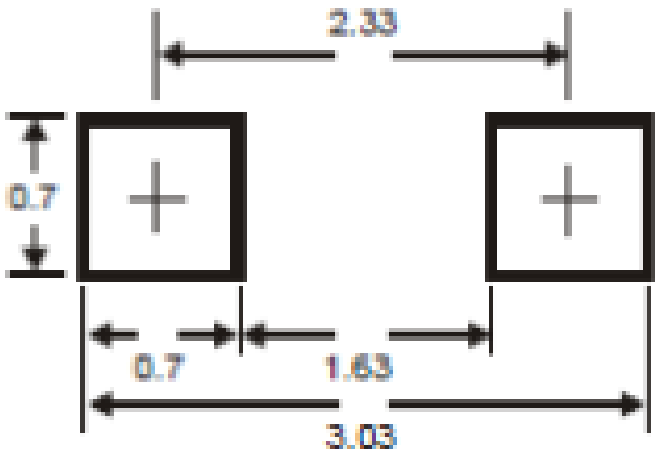
**SURFACE MOUNT**

*RECOMMENDED FOOT PRINT*

*all dimensions in mm*

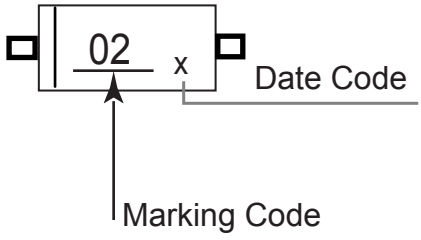
**SOD-323S**

# SOD-323S



# The Marking and Part No. for MMPZ5225BAGP-A (SOD-323S)

Marking:




Date Code Standard

| Date Code | A | B | C | D | E | F | G | H | J | K | L | M |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2013Year | JAN. | FEB. | MAR. | APR | MAY | JUNE | JULY | AUG. | SEP. | OCT | NOV. | DEC. |

| Date Code | N | P | Q | R | S | T | U | V | W | X | Y | Z |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2014Year | JAN. | FEB. | MAR. | APR | MAY | JUNE | JULY | AUG. | SEP. | OCT | NOV. | DEC. |

| | | |
|---|---|---|
| CUSTOMER : | APPROVED : DANY | CHENMKO LTD. |
| APPROVED : | CHECKED : ANGEL | |
| CHECKED : | DRAWN : BEN | DRAWING No. : |