# CHENMKO ENTERPRISE CO.,LTD

**MMVZ5235BGP-A**

Halogens free devices

## SURFACE MOUNT ZENER

SILICON PLANAR POWER ZENER DIODES

VOLTAGE RANGE 6.8V

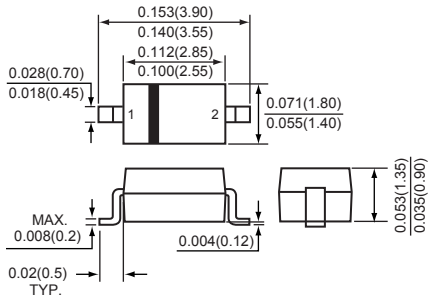
### FEATURE

* Small surface mounting type. (SOD-123)
* 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
* 500 mW Rating on FR-4 or FR-5 Board

### MECHANICAL

* SOD-123 Packaging.
* Cathode indicated by polarity band.
* Mounting position: Any.

SOD-123




Dimensions in inches and (millimeters)

SOD-123

### CIRCUIT

**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 | $P_D$ | 500 | mW |
| Max. Operating Temperature Range | $T_J$ | -65 to +150 | °C |
| Storage Temperature Range | $T_{STG}$ | -65 to +150 | ° |

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

| CHARACTERISTICS | SYMBOL | MIN. | TYP. | MAX. | UNITS |
|---|---|---|---|---|---|
| Thermal Resistance Junction to Ambient | $R_{\theta JA}$ | - | - | 550 | °C/W |
| Max. Instantaneous Forward Voltage at $I_F$= 10mA | $V_F$ | - | - | 0.9 | Volts |

2014-12

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 square wave or equivalent sine wave pulse of 1/120 second duration superimposed on the test current, $I_{ZT}$, per JEDEC registration.

## ELECTRICAL CHARACTERISTICS ( MMVZ5235BGP-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) | | | | | |
| MMVZ5235BGP-A | 6.46 | 6.8 | 7.14 | 5 | 5 | 750 | 0.25 | 3 | 5 |

## RATING CHARACTERISTIC CURVES ( MMVZ5235BGP-A )

FIG. 5 - TYPICAL CAPACITANCE

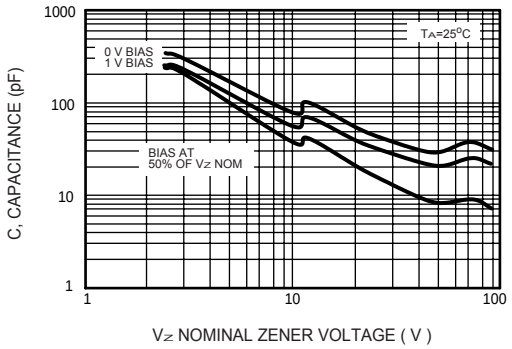



FIG. 6 - TYPICAL LEAKAGE CURRENT

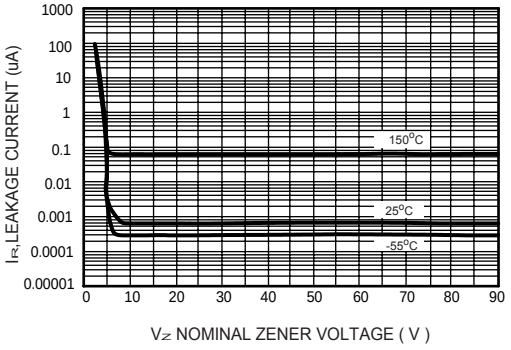



FIG. 7 - ZENER VOLTAGE VERSUS ZENER CURRENT
($V_Z$ UP TO 12V)

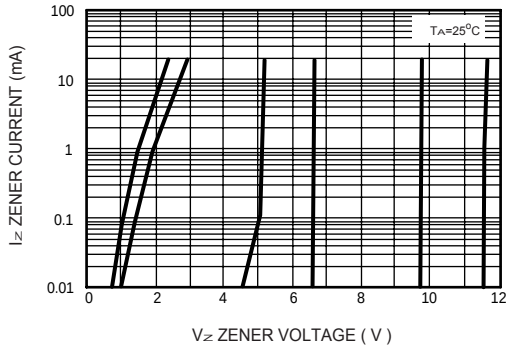
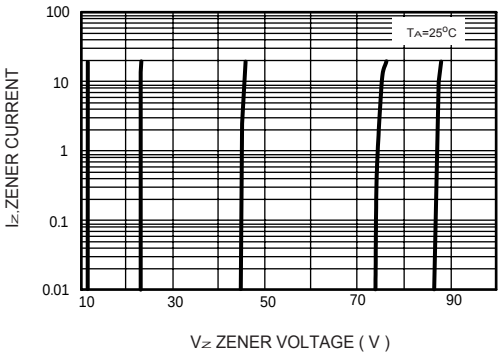



FIG. 8 - ZENER VOLTAGE VERSUS ZENER CURRENT
(12V TO 91V)



**CHENMKO ENTERPRISE CO.,LTD**

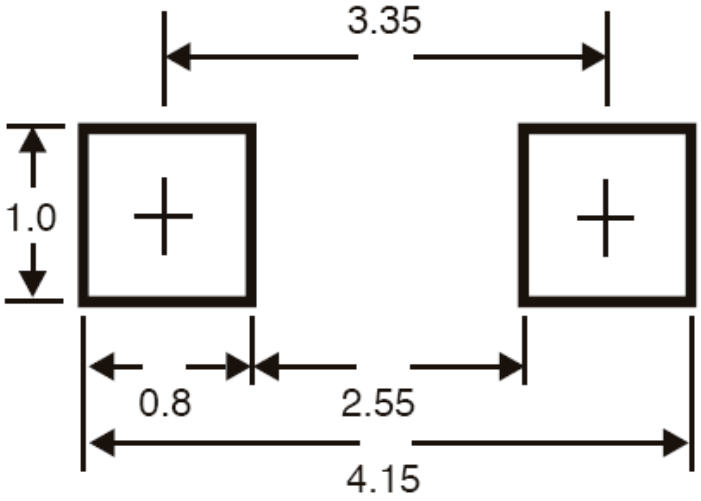
**SURFACE MOUNT**

*RECOMMENDED FOOT PRINT*

*all dimensions in mm*

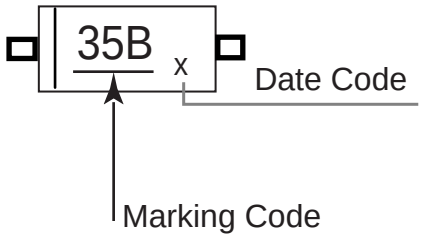
**SOD-123**

# SOD-123



# The Marking and Part No. for MMVZ5235BGP-A (SOD-123)

Marking:




Date Code Standard（二年1個週期）

| Date Code | A | B | C | D | E | F | G | H | J | K | L | M |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2015Year | 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 : | CHENMKO LTD. |
| APPROVED : | CHECKED : | |
| CHECKED : | DRAWN : | DRAWING No. : |