



CHENMKO ENTERPRISE CO.,LTD

SURFACE MOUNT ZENER

SILICON PLANAR POWER ZENER DIODES
VOLTAGE RANGE 15V

MMG2Z5245BGP-A

FEATURE

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

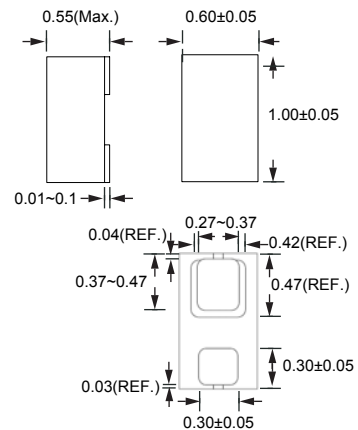
MECHANICAL

- * Void-free, Transfer-molded, Thermosetting plastic case
- * FBPD-923 Packaging.
- * Cathode indicated by polarity band.
- * Mounting position: Any.

CIRCUIT



FBPD-923



Dimensions in millimeters

FBPD-923

MAXIMUM RATINGS (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 (note 6)	P _D	225	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 (note 6)	R _{θJA}	-	-	550	°C/W
Max. Instantaneous Forward Voltage at I _F = 10mA	V _F	-	-	0.9	Volts

- 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.
 6. Refer to FBPD-923 standard mounting conditions (footprint), FR4 with 60um copper strip line.

2014-05

ELECTRICAL CHARACTERISTICS (MMG2Z5245BGP-A)

TYPE	Zener voltage V _Z (V) @ I _{ZT}			Test current I _{ZT} (mA)	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 (μA)	at V _R (V)
	Volts	Volts	Volts						
MMG2Z5245BGP-A	14.25	15	15.75	5	32	600	0.25	0.1	11

RATING CHARACTERISTIC CURVES (MMG2Z5245BGP-A)

FIG. 5 - TYPICAL CAPACITANCE

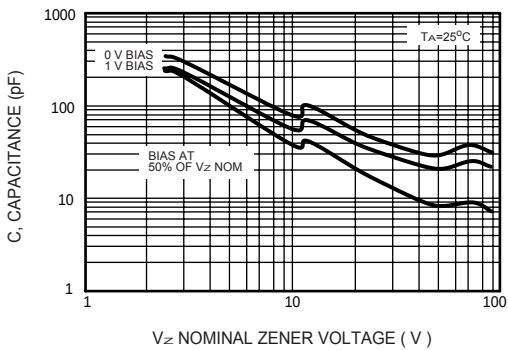


FIG. 6 - TYPICAL LEAKAGE CURRENT

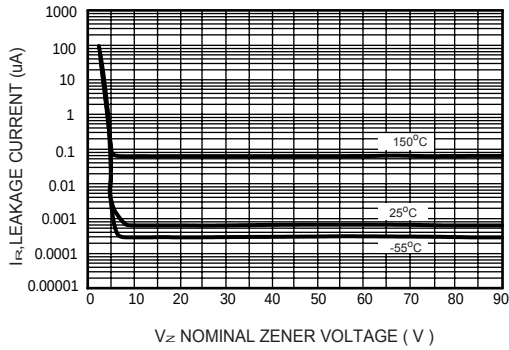


FIG. 7 - ZENER VOLTAGE VERSUS ZENER CURRENT
(V_Z UP TO 12V)

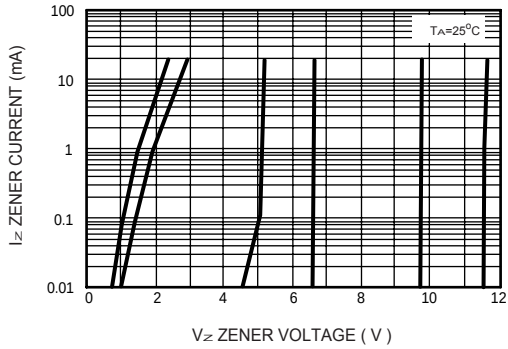
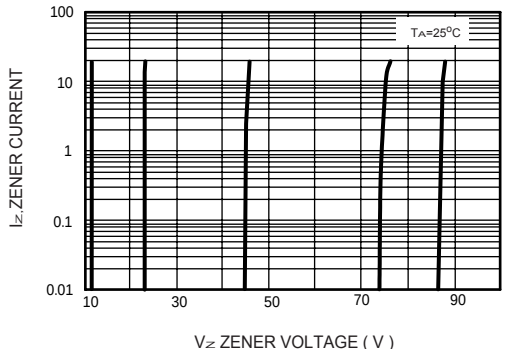


FIG. 8 - ZENER VOLTAGE VERSUS ZENER CURRENT
(12V TO 91V)





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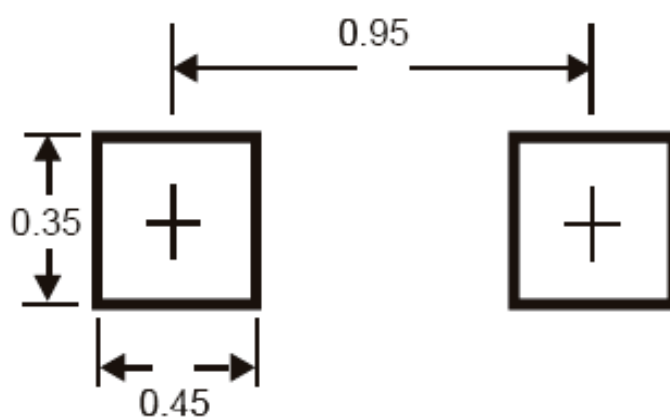
SURFACE MOUNT

RECOMMENDED FOOT PRINT

all dimensions in mm

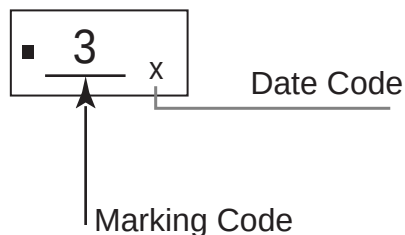
FBPD-923

FBPD-923



The Marking and Part No. for MMG2Z5245BGP-A (FBPD-923)

Marking:



Data Code Standard

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.

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.

CUSTOMER :	APPROVED :	 CHENMKO LTD.
APPROVED :	CHECKED :	
CHECKED :	DRAWN :	
		DRAWING No. :