



CHENMKO ENTERPRISE CO.,LTD

Halogens free devices

SURFACE MOUNT ZENER
SILICON PLANAR POWER ZENER DIODES
VOLTAGE RANGE 3.6V TO 33V

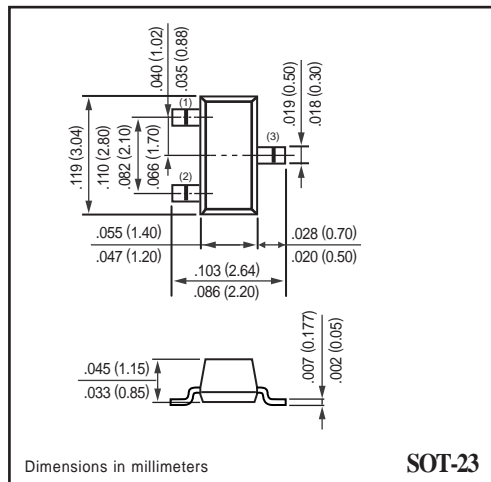
CHPZ3V6GP
THRU
CHPZ33VGP

FEATURE

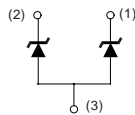
- * High temperature soldering type.
- * ESD rating of class 3(>16 kV) per human body model.
- * Silicon planar zener diodes.
- * Silicon-oxide passivated junction.
- * Low temperature coefficient voltage
- * 350 mW Rating on FR-4 or FR-5 Board
- * Dual Zener diode structure and connectd in a common anode configuration.

MECHANICAL

- * Void-free, Transfer-molded, Thermosetting plastic case
- * SOT-23 Packaging.
- * Cathode indicated by polarity band.
- * Mounting position: Any.



CIRCUIT



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

RATINGS	SYMBOL	VALUE	UNITS
Zener Current (see Table "Characteristics")	-	-	-
Max. Steady State Power Dissipation @ $T_A=25^{\circ}\text{C}$	P_D	350	mW
Max. Operating Temperature Range	T_J	-65 to +150	$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	-65 to +150	$^{\circ}\text{C}$

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

CHARACTERISTICS	SYMBOL	MIN.	TYP.	MAX.	UNITS
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	-	-	357	$^{\circ}\text{C/W}$
Max. Instantaneous Forward Voltage at $I_F=10\text{mA}$	V_F	-	-	0.9	Volts

- NOTES :
1. The JEDEC type numbers listd have a standaerd tolerance on the normal zener voltage of $\pm 5\%$, Suffix S= $\pm 2\%$.
 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 (CHPZ3V6GP THRU CHPZ33VGP)

TYPE	Zener voltage V _Z (V) @ I _{ZT}			Test current	Maximum Zener impedance			Maximum reverse leakage current		Type temperature coefficient at T _A = 25°C θ _{VZ} (%/°C)	Maximum regulator current at T _A = 50°C I _{ZM} (mA)
	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	I _{ZT} (mA)							
CHPZ3V6GP	3.4	3.6	3.8	5.0	95	600	1.0	2.0	1.0	-0.06	45
CHPZ3V9GP	3.7	3.9	4.1	5.0	90	600	1.0	2.0	1.0	-0.06	43
CHPZ4V3GP	4.0	4.3	4.6	5.0	90	600	1.0	1.0	1.0	-0.05	40
CHPZ4V7GP	4.4	4.7	5.0	5.0	80	500	1.0	3.0	2.0	+0.03	38
CHPZ5V1GP	4.8	5.1	5.4	5.0	60	400	1.0	2.0	2.0	+0.02	35
CHPZ5V6GP	5.2	5.6	6.0	5.0	40	400	1.0	1.0	2.0	+0.03	32
CHPZ6V0GP	5.6	6.0	6.4	5.0	20	150	1.0	3.0	3.5	+0.04	30
CHPZ6V2GP	5.8	6.2	6.6	5.0	10	150	1.0	3.0	4.0	+0.04	28
CHPZ6V8GP	6.4	6.8	7.2	5.0	15	80	1.0	2.0	4.0	+0.05	25
CHPZ7V5GP	7.1	7.5	7.9	5.0	15	80	1.0	1.0	5.0	+0.05	23
CHPZ8V2GP	7.7	8.2	8.7	5.0	15	80	1.0	0.7	5.0	+0.06	21
CHPZ8V7GP	8.2	8.7	9.2	5.0	15	100	1.0	0.5	6.0	+0.06	19
CHPZ9V1GP	8.6	9.1	9.6	5.0	15	100	1.0	0.2	6.0	+0.06	18
CHPZ10VGP	9.4	10	10.6	5.0	20	150	1.0	0.1	7.0	+0.07	16
CHPZ11VGP	10.4	11	11.6	5.0	20	150	1.0	0.1	8.0	+0.07	15
CHPZ12VGP	11.4	12	12.7	5.0	25	150	1.0	0.1	8.0	+0.07	13
CHPZ13VGP	12.4	13	14.1	5.0	30	170	1.0	0.1	8.0	+0.08	12
CHPZ14VGP	13.3	14	14.7	5.0	30	190	1.0	0.1	9.8	+0.08	11.5
CHPZ15VGP	14.2	15	15.8	5.0	30	200	1.0	0.05	10.5	+0.08	11
CHPZ16VGP	15.2	16	16.8	5.0	40	200	1.0	0.05	11.2	+0.08	10
CHPZ17VGP	16.1	17	17.9	5.0	40	215	1.0	0.05	11.9	+0.08	9.6
CHPZ18VGP	17.1	18	18.9	5.0	45	225	1.0	0.05	12.6	+0.08	9.2
CHPZ19VGP	18.0	19	20.0	5.0	45	225	1.0	0.05	13.3	+0.08	8.7
CHPZ20VGP	19.0	20	21.0	5.0	55	225	1.0	0.05	14.0	+0.08	8.3
CHPZ22VGP	20.9	22	23.1	5.0	55	250	1.0	0.05	15.4	+0.09	7.6
CHPZ24VGP	22.8	24	25.2	5.0	70	250	1.0	0.05	16.8	+0.09	7.0
CHPZ25VGP	23.7	25	26.3	5.0	70	275	1.0	0.05	17.5	+0.09	6.6
CHPZ27VGP	25.1	27	28.9	2.0	80	300	0.5	0.05	18.9	+0.09	6.2
CHPZ28VGP	27.1	28	29.9	2.0	80	300	0.5	0.05	19.6	+0.09	5.9
CHPZ30VGP	28.0	30	32.0	2.0	80	300	0.5	0.05	21.0	+0.09	5.6
CHPZ33VGP	31.0	33	35.0	2.0	80	325	0.5	0.05	23.1	+0.09	5.0

RATING CHARACTERISTIC CURVES (CHPZ3V6GP THRU CHPZ33VGP)

