



# CHENMKO ENTERPRISE CO.,LTD

Halogens free devices

## AXIAL LEAD

SILICON PLANAR POWER ZENER DIODES  
VOLTAGE RANGE 3.3V TO 100V

1N4728GP

THRU

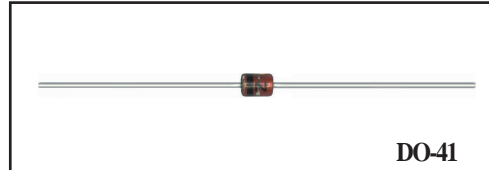
1N4764GP

### FEATURE

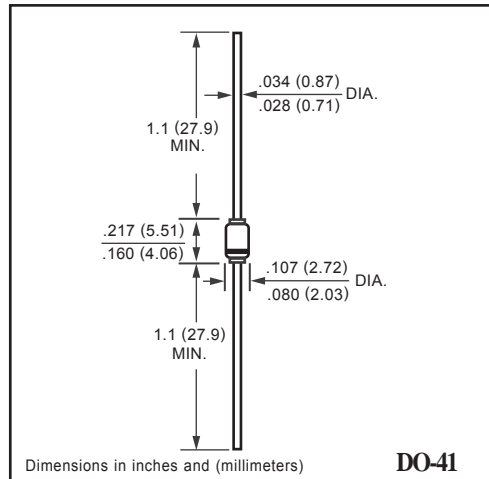
- \* High temperature soldering type.
- \* ESD rating of class 3(>16 kV) per human body model.
- \* Silicon planar zener diodes.
- \* Silicon-oxide passivated junction.
- \* Low temperature coefficient voltage

### MECHANICAL

- \* Axial-lead hermetically sealed package.
- \* DO-41 Packaging.
- \* Cathode indicated by polarity band.
- \* Mounting position: Any.



DO-41



DO-41

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

#### MAXIMUM RATINGS ( At TA = 25°C unless otherwise noted )

RATINGS	SYMBOL	VALUE	UNITS
Zener Current ( see Table "Characteristics" )	-	-	-
Max. Steady State Power Dissipation @TL=75°C,Lead Length=3/8"	P <sub>D</sub>	1.0	W
Max. Operating Temperature Range	T <sub>J</sub>	+200	°C
Storage Temperature Range	T <sub>STG</sub>	-65 to +200	°C

#### ELECTRICAL CHARACTERISTICS ( At TA = 25°C unless otherwise noted )

CHARACTERISTICS	SYMBOL	MIN.	TYP.	MAX.	UNITS
Thermal Resistance Junction to Ambient	R θJA	-	-	170	°C/W
Max. Instantaneous Forward Voltage at IF= 100mA	V <sub>F</sub>	-	-	1.20	Volts

- NOTES :
1. The JEDEC type numbers listed have a standard tolerance on the normal zener voltage of ±10%, Suffix A=±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<sub>ZT</sub> or I<sub>ZK</sub>) is superimposed on I<sub>ZT</sub> or I<sub>ZK</sub>. 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 listed 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<sub>ZT</sub>, per JEDEC registration.

2008-06

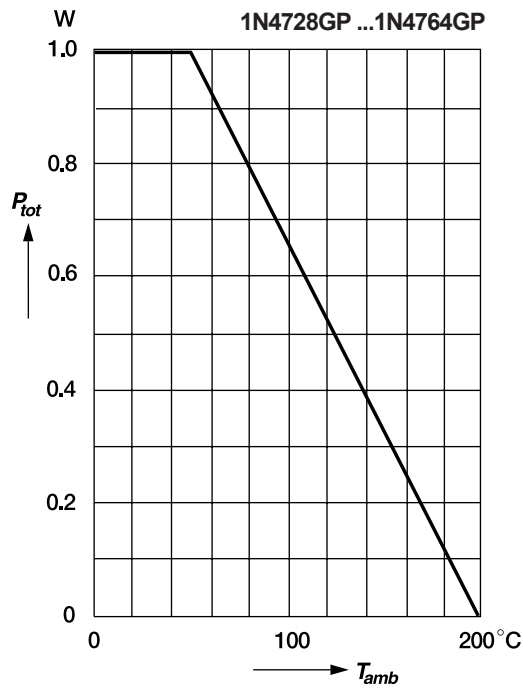
## ELECTRICAL CHARACTERISTICS ( 1N4728GP THRU 1N4764GP )

TYPE	Nominal Zener voltage at $I_{ZT}$ $V_Z$ (V)	Test current $I_{ZT}$ (mA)	Maximum Zener impedance			Maximum reverse leakage current		Surge current at $T_A = 25^\circ\text{C}$ $I_R$ (mA)	Maximum regulator current at $T_A = 50^\circ\text{C}$ $I_{ZM}$ (mA)
			$Z_{ZT}$ at $I_{ZT}$ ( $\Omega$ )	$Z_{ZK}$ ( $\Omega$ )	at $I_{ZK}$ (mA)	$I_R$ ( $\mu\text{A}$ )	at $V_R$ (V)		
1N4728GP	3.3	76	10	400	1.0	100	1	1380	276
1N4729GP	3.6	69	10	400	1.0	100	1	1260	252
1N4730GP	3.9	64	9	400	1.0	50	1	1190	234
1N4731GP	4.3	58	9	400	1.0	10	1	1070	217
1N4732GP	4.7	53	8	500	1.0	10	1	970	193
1N4733GP	5.1	49	7	550	1.0	10	1	890	178
1N4734GP	5.6	45	5	600	1.0	10	2	810	162
1N4735GP	6.2	41	2	700	1.0	10	3	730	146
1N4736GP	6.8	37	3.5	700	1.0	10	4	660	133
1N4737GP	7.5	34	4.0	700	0.5	10	5	605	121
1N4738GP	8.2	31	4.5	700	0.5	10	6	550	110
1N4739GP	9.1	28	5.0	700	0.5	10	7	500	100
1N4740GP	10	25	7	700	0.25	10	7.6	454	91
1N4741GP	11	23	8	700	0.25	5	8.4	414	83
1N4742GP	12	21	9	700	0.25	5	9.1	380	76
1N4743GP	13	19	10	700	0.25	5	9.9	344	69
1N4744GP	15	17	14	700	0.25	5	11.4	304	61
1N4745GP	16	15.5	16	700	0.25	5	12.2	285	57
1N4746GP	18	14	20	750	0.25	5	13.7	250	50
1N4747GP	20	12.5	22	750	0.25	5	15.2	225	45
1N4748GP	22	11.5	23	750	0.25	5	16.7	205	41
1N4749GP	24	10.5	25	750	0.25	5	18.2	190	38
1N4750GP	27	9.5	35	750	0.25	5	20.6	170	34
1N4751GP	30	8.5	40	1000	0.25	5	22.8	150	30
1N4752GP	33	7.5	45	1000	0.25	5	25.1	135	27
1N4753GP	36	7.0	50	1000	0.25	5	27.4	125	25
1N4754GP	39	6.5	60	1000	0.25	5	29.7	115	23
1N4755GP	43	6.0	70	1500	0.25	5	32.7	110	22
1N4756GP	47	5.5	80	1500	0.25	5	35.8	95	19
1N4757GP	51	5.0	95	1500	0.25	5	38.8	90	18
1N4758GP	56	4.5	110	2000	0.25	5	42.6	80	16
1N4759GP	62	4.0	125	2000	0.25	5	47.1	70	14
1N4760GP	68	3.7	150	2000	0.25	5	51.7	65	13
1N4761GP	75	3.3	175	2000	0.25	5	56.0	60	12
1N4762GP	82	3.0	200	3000	0.25	5	62.2	55	11
1N4763GP	91	2.8	250	3000	0.25	5	69.2	50	10
1N4764GP	100	2.5	350	3000	0.25	5	76.0	45	9

## RATING CHARACTERISTIC CURVE ( 1N4728GP THRU 1N4764GP )

### Admissible power dissipation versus ambient temperature

Valid provided that leads are kept at ambient temperature at a distance of 10 mm from case



### Pulse thermal resistance versus pulse duration

Valid provided that leads are kept at ambient temperature at a distance of 10 mm from case

