



CHENMKO ENTERPRISE CO.,LTD

AXIAL LEAD

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

1N4728PT

THRU

1N4764PT

Lead free devices

FEATURE

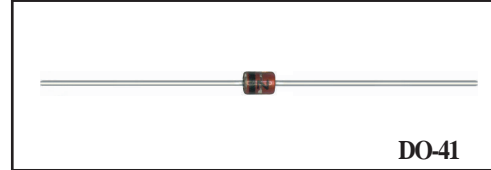
- * High temperature soldering type.
- * ESD rating of class 3(>16 kV) per human body model.
- * Silicon planar zener diodes.
- * Silicon-oxide passivated junction.
- * Low temperature coefficient voltage

MECHANICAL

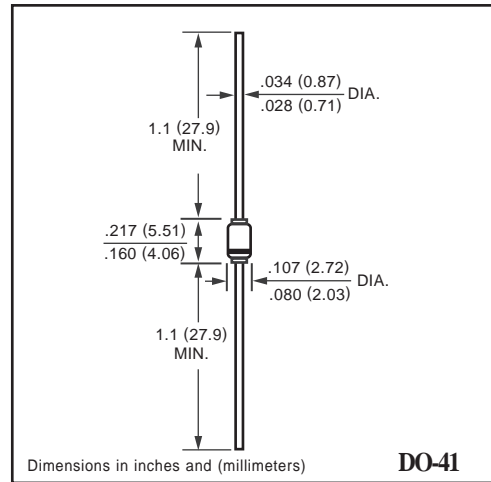
- * Axial-lead hermetically sealed package.
- * DO-41 Packaging.
- * Cathode indicated by polarity band.
- * Mounting position: Any.
- * Weight: Approx. 0.35g.

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.



DO-41



DO-41

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 _D	1.0	W
Max. Operating Temperature Range	T _J	+200	°C
Storage Temperature Range	T _{STG}	-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 I _F = 100mA	V _F	-	-	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_{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 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_{ZT}, per JEDEC registration.

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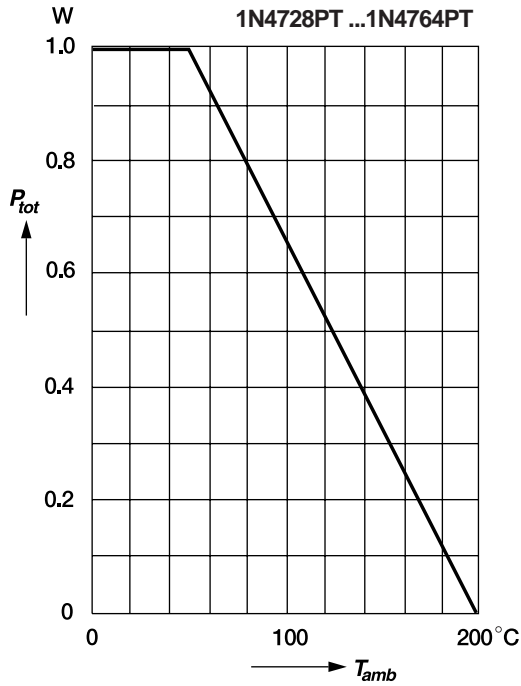
ELECTRICAL CHARACTERISTICS (1N4728PT THRU 1N4764PT)

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} (Ω)	Z_{ZK} (Ω)	at I_{ZK} (mA)	I_R (μA)	at V_R (V)		
1N4728PT	3.3	76	10	400	1.0	100	1	1380	276
1N4729PT	3.6	69	10	400	1.0	100	1	1260	252
1N4730PT	3.9	64	9	400	1.0	50	1	1190	234
1N4731PT	4.3	58	9	400	1.0	10	1	1070	217
1N4732PT	4.7	53	8	500	1.0	10	1	970	193
1N4733PT	5.1	49	7	550	1.0	10	1	890	178
1N4734PT	5.6	45	5	600	1.0	10	2	810	162
1N4735PT	6.2	41	2	700	1.0	10	3	730	146
1N4736PT	6.8	37	3.5	700	1.0	10	4	660	133
1N4737PT	7.5	34	4.0	700	0.5	10	5	605	121
1N4738PT	8.2	31	4.5	700	0.5	10	6	550	110
1N4739PT	9.1	28	5.0	700	0.5	10	7	500	100
1N4740PT	10	25	7	700	0.25	10	7.6	454	91
1N4741PT	1	23	8	700	0.25	5	8.4	414	83
1N4742PT	12	21	9	700	0.25	5	9.1	380	76
1N4743PT	13	19	10	700	0.25	5	9.9	344	69
1N4744PT	15	17	14	700	0.25	5	11.4	304	61
1N4745PT	16	15.5	16	700	0.25	5	12.2	285	57
1N4746PT	18	14	20	750	0.25	5	13.7	250	50
1N4747PT	20	12.5	22	750	0.25	5	15.2	225	45
1N4748PT	22	11.5	23	750	0.25	5	16.7	205	41
1N4749PT	24	10.5	25	750	0.25	5	18.2	190	38
1N4750PT	27	9.5	35	750	0.25	5	20.6	170	34
1N4751PT	30	8.5	40	1000	0.25	5	22.8	150	30
1N4752PT	33	7.5	45	1000	0.25	5	25.1	135	27
1N4753PT	36	7.0	50	1000	0.25	5	27.4	125	25
1N4754PT	39	6.5	60	1000	0.25	5	29.7	115	23
1N4755PT	43	6.0	70	1500	0.25	5	32.7	110	22
1N4756PT	47	5.5	80	1500	0.25	5	35.8	95	19
1N4757PT	51	5.0	95	1500	0.25	5	38.8	90	18
1N4758PT	56	4.5	110	2000	0.25	5	42.6	80	16
1N4759PT	62	4.0	125	2000	0.25	5	47.1	70	14
1N4760PT	68	3.7	150	2000	0.25	5	51.7	65	13
1N4761PT	75	3.3	175	2000	0.25	5	56.0	60	12
1N4762PT	82	3.0	200	3000	0.25	5	62.2	55	11
1N4763PT	91	2.8	250	3000	0.25	5	69.2	50	10
1N4764PT	100	2.5	350	3000	0.25	5	76.0	45	9

RATING CHARACTERISTIC CURVE (1N4728PT THRU 1N4764PT)

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

