

KOEP PRECISION STANDARDS, INC.



NEW-TECH STANDARDS
FOR REAL-WORLD USE

PRD SERIES

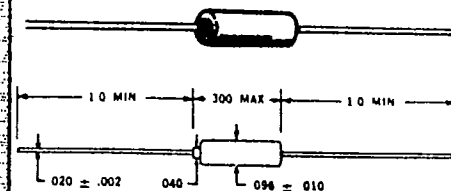
Ultra-Stable, Low Noise

The PRD SERIES is a family of selected and aged silicon diodes, mounted in the hermetically sealed DO7 package. These diodes are optionally available mounted inside an oil filled metal can to meet really tough requirements. We would be pleased to discuss your special needs. A unique, computer controlled automated system, evolved in-house, is used to evaluate the characteristics of all PRD diodes. Tests performed include short and long term stability, predictability and temperature sensitivity. Every diode is individually tested. Its documented "ZERO-TEMP CO CURRENT" is included with every diode shipped. When this value is used by the customer, he can count on a temperature coefficient at least as good as shown in the table. VOLTAGE-TIME STABILITY is the feature of this family of diodes. Stabilities up to 5PPM/year are available.

VOLTAGE REFERENCE DIODES

SPECIAL FEATURES

- Guaranteed stability over one year period.
- Temperature coefficient: 1 ppm/°C 25 to 45 C.
- Noise: 1 ppm
- Certified Test Data



DO-7 GLASS PACKAGE

GENERAL SPECIFICATIONS	PRD7500 SERIES	PRD2000 SERIES	PRD600 SERIES
OPERATING VOLTAGE (VOLTS)	6.2 ± 5%	6.35 ± 5%	6.2 ± 5%
NOMINAL OPERATING CURRENT	7.5 ma	2 ma	7.5 ma
MAX Z AT NOM. OPER. CURRENT	12 ohms	75 ohms	10 ohms
POWER DISSIP AT NOM. OR CUR.	46.5 mw	12.8 mw	46.5 mw

DIODE PART NUMBERS	VOLTAGE-TIME STABILITY (MAX. PPM CHANGE)			MAXIMUM TEMPCO AT ZERO-TC CURRENT (25 C-45 C)	MAXIMUM INTERNALLY GENERATED NOISE IN PPM	
	ONE YEAR	1000 HRS.	8 HRS		RMS	P-P
*PRD7505	5				.15	0.9
*PRD7505LN	5				.08	0.5
PRD7510	10	3	1	1	.10	1.0
PRD2010	10	3	1	1	.10	1.0
PRD7520	20	4	1	1	.10	1.0
PRD2020	20	4	1	1	.10	1.0
PRD7530	30	5	1	1	.15	1.5
PRD2030	30	5	1	1	.15	1.5
PRD605	30	5	1	1	.15	1.5
PRD7540	40	7	1	1	.15	1.5
PRD2040	40	7	1	1	.15	1.5
PRD7560	60	10	2	2	.20	2.0
PRD2060	60	10	2	2	.20	2.0
PRD610	60	10	2	2	.20	2.0
PRD7590	90	15	2	2	.20	2.0
PRD2090	90	15	2	2	.20	2.0
PRD620	120	20	3	2	.30	3.0
PRD640	240	40	5	2	.40	4.0

"25/50/100 C VOLTAGE-TEMPERATURE STABILITY, which is the maximum change in diode voltage when ambient temperature changes to any value between 25 C and 100 C is 2.5 millivolts for all diodes listed above, except 3.5 millivolts for PRD7560, PRD2060, PRD610, PRD7590, and PRD2090.

*PRD7505 & PRD7505LN are supplied in hermetically sealed metal cases.