DIGITRON SEMICONDUCTORS

1N4565(A)-1N4584(A) 6.4 VOLT TEMPERATURE COMPENSATED ZENER REFERENCE DIODES

MAXIMUM RATINGS

Characteristics	Value
Operating and storage temperatures	-65 to +175°C
DC power dissipation	500mW @ 50°C
Power derating	4mW/°C above 50°C
Solder temperature	260°C for 10 s maximum

I_R = 2µA @ 25°C and V_R = 3V

ELECTRICAL CHARACTERISTICS

Part number (Note 1)	Zener test current (Note 3) I_{ZT}	Maximum voltage temperature coefficient			Maximum reverse current I_R @ 3 V	Maximum dynamic impedance (Note 2) Z_{ZT} @ I_{ZT}
	mA	αvz ± % / °C	± mV / °C	Temp. range	µA	Ohms
1N4565	.5	0.01	.64	0 to 75°C	2.0	200
1N4565A	.5	0.01	.64	-55 to 100°C	2.0	200
1N4566	.5	0.005	.32	0 to 75°C	2.0	200
1N4566A	.5	0.005	.32	-55 to 100°C	2.0	200
1N4567	.5	0.002	.13	0 to 75°C	2.0	200
1N4567A	.5	0.002	.13	-55 to 100°C	2.0	200
1N4568	.5	0.001	.06	0 to 75°C	2.0	200
1N4568A	.5	0.001	.06	-55 to 100°C	2.0	200
1N4569	.5	0.0005	.03	0 to 75°C	2.0	200
1N4569A	.5	0.0005	.03	-55 to 100°C	2.0	200
1N4570	.5	0.01	.64	0 to 75°C	2.0	100
1N4570A	.5	0.01	.64	-55 to 100°C	2.0	100
1N4571	1.0	0.005	.32	0 to 75°C	2.0	100
1N4571A	1.0	0.005	.32	-55 to 100°C	2.0	100
1N4572	1.0	0.002	.13	0 to 75°C	2.0	100
1N4572A	1.0	0.002	.13	-55 to 100°C	2.0	100
1N4573	1.0	0.001	.06	0 to 75°C	2.0	100
1N4573A	1.0	0.001	.06	-55 to 100°C	2.0	100
1N4574	1.0	0.0005	.03	0 to 75°C	2.0	100
1N4574A	1.0	0.0005	.03	-55 to 100°C	2.0	100
1N4575	2.0	0.01	.64	0 to 75°C	2.0	50
1N4575A	2.0	0.01	.64	-55 to 100°C	2.0	50
1N4576	2.0	0.005	.32	0 to 75°C	2.0	50
1N4576A	2.0	0.005	.32	-55 to 100°C	2.0	50
1N4577	2.0	0.002	.13	0 to 75°C	2.0	50
1N4577A	2.0	0.002	.13	-55 to 100°C	2.0	50
1N4578	2.0	0.001	.06	0 to 75°C	2.0	50
1N4578A	2.0	0.001	.06	-55 to 100°C	2.0	50
1N4579	2.0	0.0005	.03	0 to 75°C	2.0	50
1N4579A	2.0	0.0005	.03	-55 to 100°C	2.0	50
1N4580	4.0	0.01	.64	0 to 75°C	2.0	25
1N4580A	4.0	0.01	.64	-55 to 100°C	2.0	25
1N4581	4.0	0.005	.32	0 to 75°C	2.0	25

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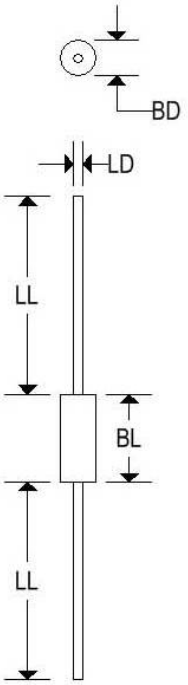
ELECTRICAL CHARACTERISTICS

Part number (Note 1)	Zener test current (Note 3) I_{ZT}	Maximum voltage temperature coefficient			Maximum reverse current I_R @ 3 V	Maximum dynamic impedance (Note 2) Z_{ZT} @ I_{ZT}
	mA	αvz ± % / °C	± mV / °C	Temp. range	µA	mA
1N4581A	4.0	.005	.32	-55 to 100°C	2.0	25
1N4582	4.0	.002	.13	0 to 75°C	2.0	25
1N4582A	4.0	.002	.13	-55 to 100°C	2.0	25
1N4583	4.0	.001	.06	0 to 75°C	2.0	25
1N4583A	4.0	.001	.06	-55 to 100°C	2.0	25
1N4584	4.0	.0005	.03	0 to 75°C	2.0	25
1N4584A	4.0	.0005	.03	-55 to 100°C	2.0	25

1. Devices with tighter tolerances than specified for the V_Z voltage nominal of 6.4V, add a hyphenated suffix to the part number for desired tolerance
2. Zener impedance is measured by superimposing 0.75 mA ac rms on 7.5 mA dc @ 25°C.
3. Voltage measurements to be performed 15 seconds after application of dc test current I_{ZT}.

MECHANICAL CHARACTERISTICS

Case	DO-35, hermetically sealed glass
Marking	Body painted, alpha numeric
Polarity	Cathode band



	DO-35			
	Inches		Millimeters	
	Min	Max	Min	Max
BD	0.055	0.090	1.400	2.290
BL	0.120	0.200	3.050	5.080
LD	0.018	0.022	0.460	0.560
LL	1.000	1.500	25.400	38.100

Available Non-RoHS (standard) or RoHS compliant (add PBF suffix).
Available as “HR” (high reliability) screened per MIL-PRF-19500, JANTX level. Add “HR” suffix to base part number.

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Rev. 20121112

D I G I T R O N S E M I C O N D U C T O R S

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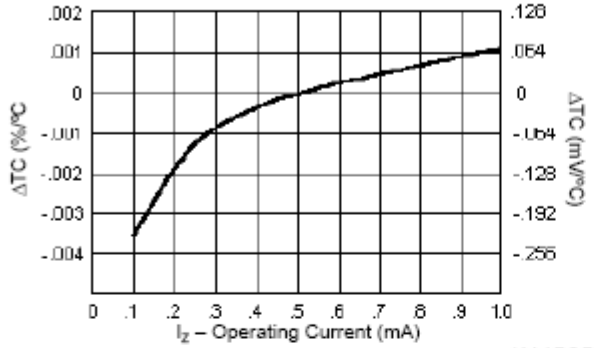
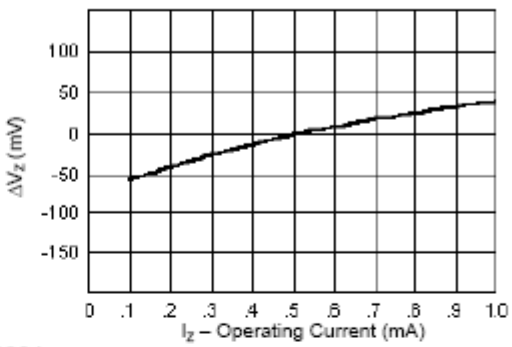
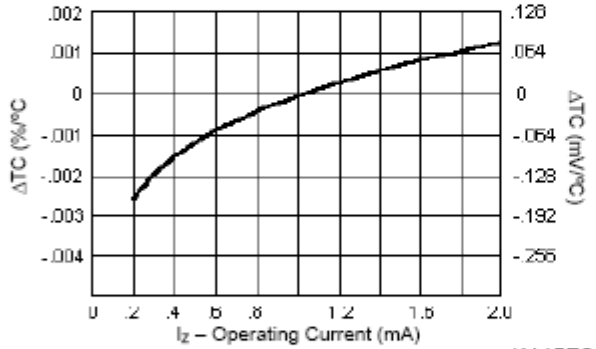
Typical change of Temperature Coefficient with change in Operating Current

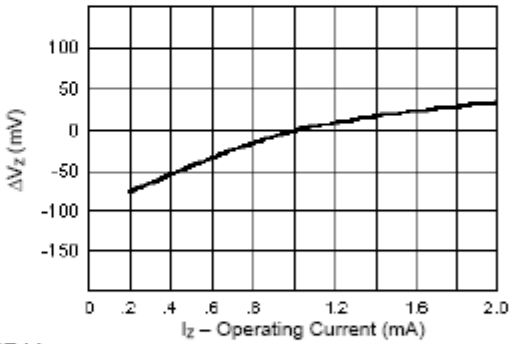


Typical Change in Zener Voltage with change in Operating Current



1N4565 – 1N4569A





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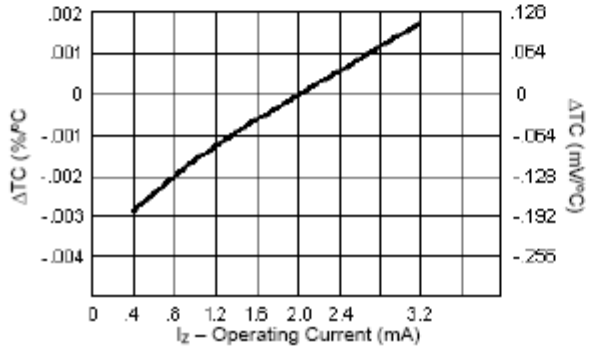

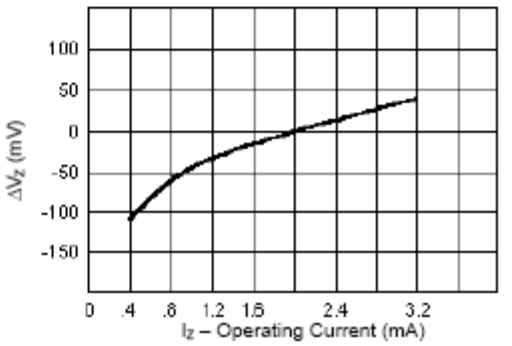

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