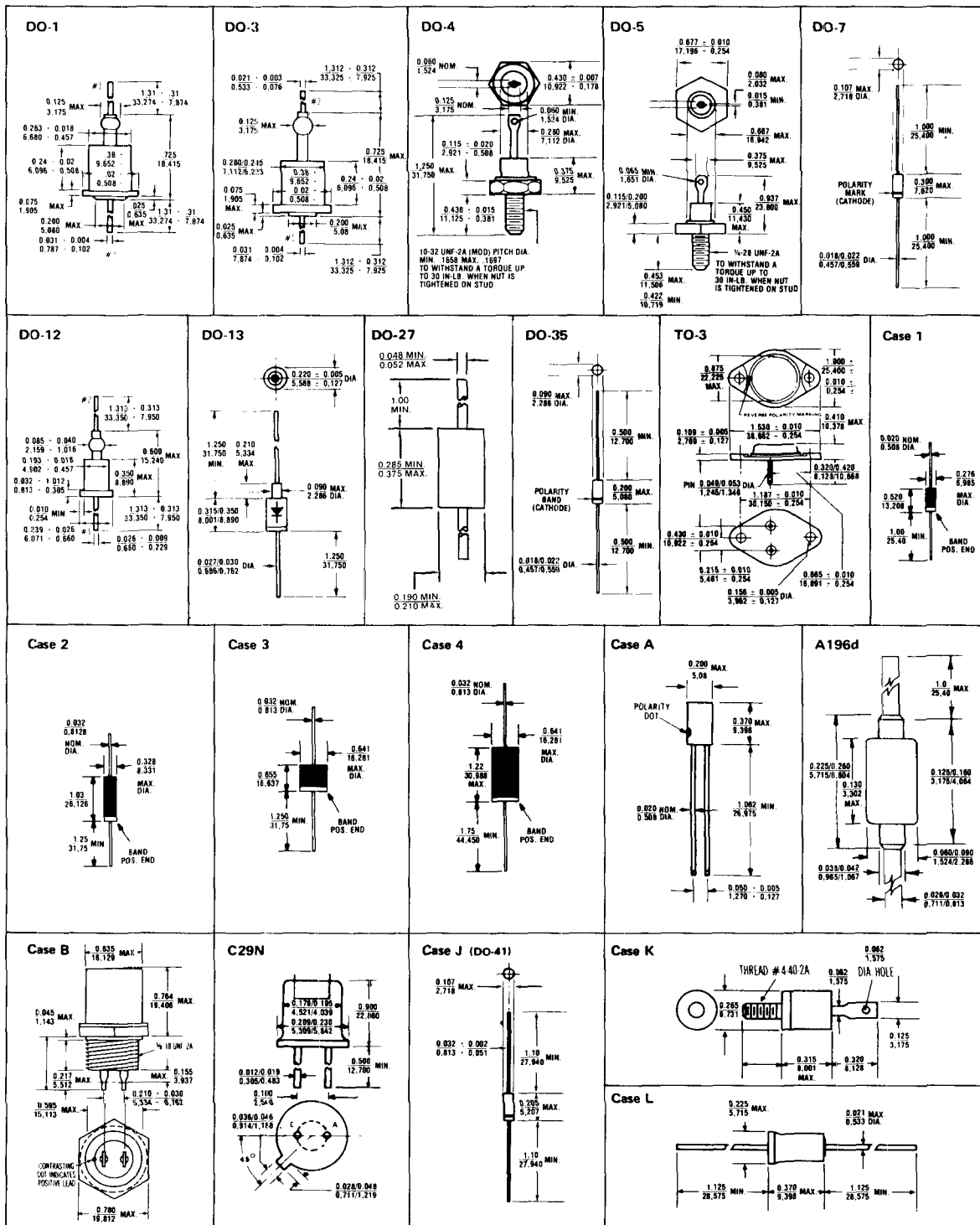


Zener Type No.	Zener Voltage at I_{ZT}		Max. Zener Impedance @ I_{ZT} Ohms	Zener Voltage Tolerance	Power Rating	Device Package	MICROSEMI Recommended Substitute
	Volts	@ mA					
1N4549	3.9	3200	0.16	No Suffix = 20% Suffix A = 10%, Suffix B = 5% Suffix R = Rev. Polarity	50 watt	DO-5	
1N4550	4.3	2900	0.16		"	"	
1N4551	4.7	2650	0.12		"	"	
1N4552	5.1	2450	0.12	" "	"	"	
1N4553	5.6	2250	0.12	" "	"	"	
1N4554	6.2	2000	0.14	" "	"	"	
1N4555	6.8	1850	0.16	" "	"	"	
1N4556	7.5	1650	0.24	" "	"	"	
1N4557	3.9	3200	0.16	No Suffix = 20% Suffix A = 10%, Suffix B = 5% Suffix R = Rev. Polarity	50 watt	TO-3	
1N4558	4.3	2900	0.16		"	"	
1N4559	4.7	2650	0.12		"	"	
1N4560	5.1	2450	0.12	" "	"	"	
1N4561	5.6	2250	0.12	" "	"	"	
1N4562	6.2	2000	0.14	" "	"	"	
1N4563	6.8	1850	0.16	" "	"	"	
1N4564	7.5	1650	0.24	" "	"	"	
1N4565(2,23)	6.4 ± 5%	0.5	200.0	T.C. = .01% / °C(7)	400 mw	DO-7	
1N4566(2,23)	6.4 ± 5%	"	"	T.C. = .005% / °C(7)	"	"	
1N4567(2,23)	6.4 ± 5%	"	"	T.C. = .002% / °C(7)	"	"	
1N4568(2,23)	6.4 ± 5%	"	"	T.C. = .001% / °C(7)	"	"	
1N4569(2,23)	6.4 ± 5%	"	"	T.C. = .0005% / °C(7)	"	"	
1N4570(2,23)	6.4 ± 5%	1.0	100.0	T.C. = .01% / °C(7)	"	"	
1N4571(2,23)	6.4 ± 5%	"	"	T.C. = .005% / °C(7)	"	"	
1N4572(2,23)	6.4 ± 5%	"	"	T.C. = .002% / °C(7)	"	"	
1N4573(2,23)	6.4 ± 5%	"	"	T.C. = .001% / °C(7)	"	"	
1N4574(2,23)	6.4 ± 5%	"	"	T.C. = .0005% / °C(7)	"	"	
1N4575(2,23)	6.4 ± 5%	2.0	50.0	T.C. = .01% / °C(7)	"	"	
1N4576(2,23)	6.4 ± 5%	"	"	T.C. = .005% / °C(7)	"	"	
1N4577(2,23)	6.4 ± 5%	"	"	T.C. = .002% / °C(7)	"	"	
1N4578(2,23)	6.4 ± 5%	"	"	T.C. = .001% / °C(7)	"	"	
1N4579(2,23)	6.4 ± 5%	"	"	T.C. = .0005% / °C(7)	"	"	
1N4580(2,23)	6.4 ± 5%	4.0	25.0	T.C. = .01% / °C(7)	"	"	
1N4581(2,23)	6.4 ± 5%	"	"	T.C. = .005% / °C(7)	"	"	
1N4582(2,23)	6.4 ± 5%	"	"	T.C. = .002% / °C(7)	"	"	
1N4583(2,23)	6.4 ± 5%	"	"	T.C. = .001% / °C(7)	"	"	
1N4584(2,23)	6.4 ± 5%	"	"	T.C. = .0005% / °C(7)	"	"	
1N4611 ⁽²⁾	6.6 ± 5%	2.0 ⁽²²⁾	75.0	Suffix A = .0005% / °C Suffix B = .001% / °C Suffix C = .002% / °C	250 mw	DO-7	
1N4612 ⁽²⁾	6.6 ± 5%	5.0 ⁽²²⁾	25.0		"	"	
1N4613 ⁽²⁾	6.6 ± 5%	10.0 ⁽²²⁾	15.0		"	"	
1N4614(19,20)	1.8	250.0 μA	1200.0	± 5%	250 mw	DO-7	
1N4615(19,20)	2.0	"	1250.0	"	"	"	
1N4616(19,20)	2.2	"	1300.0	"	"	"	
1N4617(19,20)	2.4	"	1400.0	"	"	"	
1N4618(19,20)	2.7	"	1500.0	"	"	"	
1N4619(19,20)	3.0	"	1600.0	"	"	"	
1N4620(19,20)	3.3	"	1650.0	"	"	"	
1N4621(19,20)	3.6	"	1700.0	"	"	"	
1N4622(19,20)	3.9	"	1650.0	"	"	"	
1N4623(19,20)	4.3	"	1600.0	"	"	"	
1N4624(19,20)	4.7	"	1550.0	"	"	"	
1N4625(19,20)	5.1	"	1500.0	"	"	"	
1N4626(19,20)	5.6	"	1400.0	"	"	"	
1N4627(19,20)	6.2	"	1200.0	"	"	"	
1N4628	6.8	18.5	4.5	No Suffix = 5%	600 mw	DO-7	
1N4629	7.5	16.5	5.5		"	"	
1N4630	8.2	15.0	6.5		"	"	
1N4631	9.1	14.0	7.5	"	"	"	
1N4632	10.0	12.5	8.5	"	"	"	
1N4633	11.0	11.5	9.5	"	"	"	
1N4634	12.0	10.5	11.5	"	"	"	
1N4635	13.0	9.5	13.0	"	"	"	
1N4636	15.0	8.5	16.0	"	"	"	
1N4637	16.0	7.8	17.0	"	"	"	
1N4638	18.0	7.0	21.0	"	"	"	
1N4639	20.0	6.2	25.0	"	"	"	
1N4640	22.0	5.6	29.0	"	"	"	
1N4641	24.0	5.2	33.0	"	"	"	
1N4642	27.0	4.6	41.0	"	"	"	
1N4643	30.0	4.2	49.0	"	"	"	
1N4644	33.0	3.8	58.0	"	"	"	
1N4645	36.0	3.4	70.0	"	"	"	

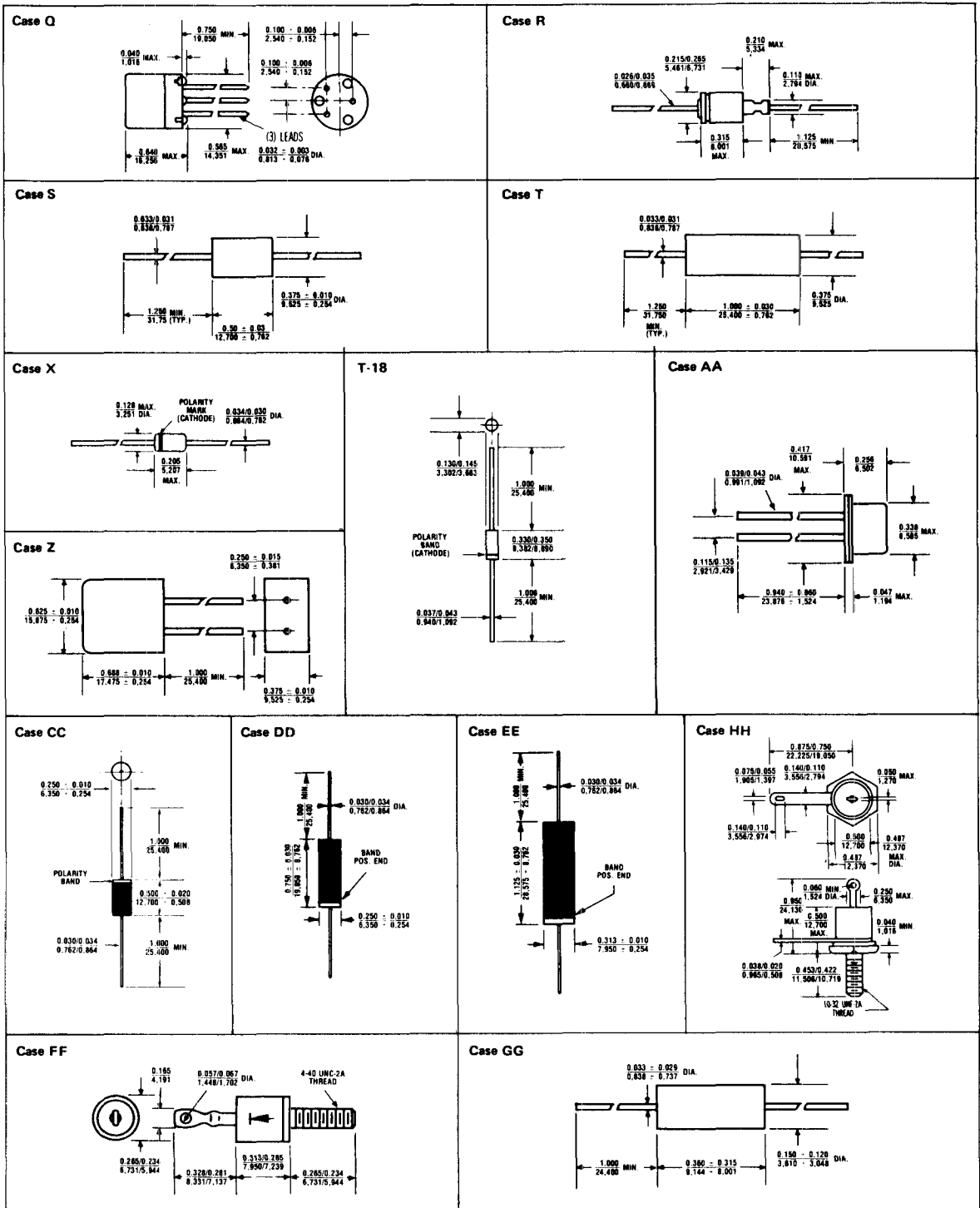
NOTE — Diode types presently available from Microsemi Corporation are shown in bold type.

CASE CONFIGURATION CHART



All dimensions in $\frac{\text{INCH}}{\text{M.M.}}$

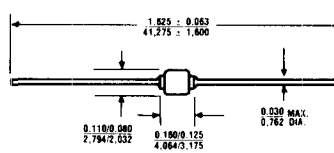
CASE CONFIGURATION CHART



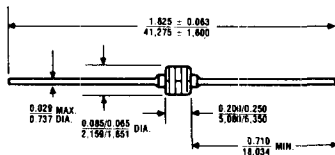
All dimensions in INCH
m.m.

CASE CONFIGURATION CHART

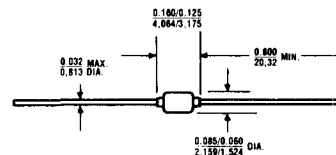
Case JJ



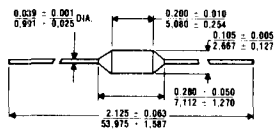
Case LL



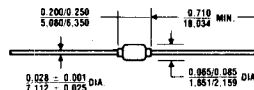
Case MM



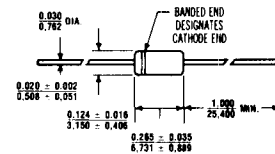
Case NN



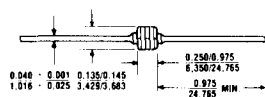
Case OO



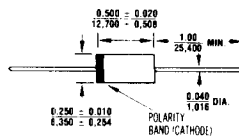
Case QQ



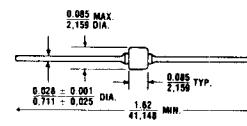
Case RR



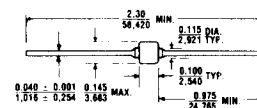
Case SS



Case UU



Case VV



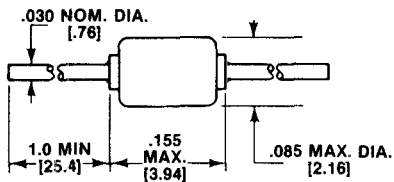
All dimensions in INCH
mm.

CASE CONFIGURATION CHART

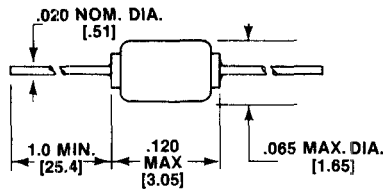
MECHANICAL CONFIGURATIONS PHYSICAL DIMENSIONS

DIMENSIONS IN INCHES (MM)

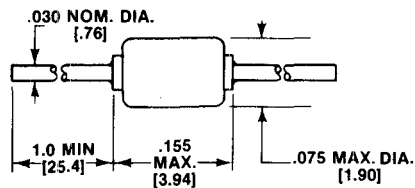
PACKAGE A



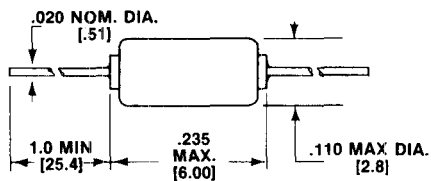
PACKAGE B [D034]



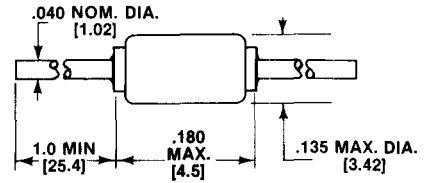
PACKAGE C



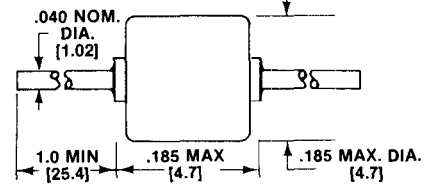
PACKAGE D



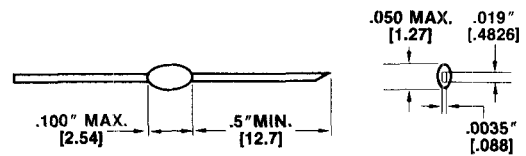
PACKAGE E



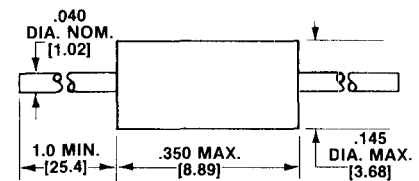
PACKAGE G



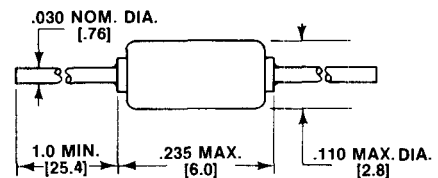
PACKAGE H



PACKAGE R



PACKAGE S



FEATURES

- 6.4 volt $\pm 5\%$ Zener voltage (Note 1)
- Temperature coefficient range: 0.01%/°C to 0.0005%/°C
- Zener test current range: 500 μ A to 4mA
- 1N4565A thru 1N4574A have J, TX, TXV qualification to MIL-S-19500/452

*MAXIMUM RATINGS

Power Dissipation: 400 mW, at 50°C ambient
(derate 3.2mw/°C above 50°C ambient)

Operating and Storage Temperature: -65 to +175°C

Leakage Current: @ 3 V: 10 μ A

*ELECTRICAL CHARACTERISTICS @ 25°C, unless otherwise specified

JEDEC TYPE NO.	(NOTE 3) ZENER TEST CURRENT mA	MAXIMUM VOLTAGE $\alpha_{VZ} \pm \%/^{\circ}\text{C}$	TEMPERATURE COEFFICIENT $\pm \text{mV}/^{\circ}\text{C}$	TEMP. RANGE	MAX. DYNAMIC ZENER IMPEDANCE OHMS (Not ²)
1N4565	.5	.01	.64	0 to +75°C	200
1N4565A	.5	.01	.64	-55 to +100°C	200
1N4566	.5	.005	.32	0 to +75°C	200
1N4566A	.5	.005	.32	-55 to +100°C	200
1N4567	.5	.002	.13	0 to +75°C	200
1N4567A	.5	.002	.13	-55 to +100°C	200
1N4568	.5	.001	.06	0 to +75°C	200
1N4568A	.5	.001	.06	-55 to +100°C	200
1N4569	.5	.0005	.03	0 to +75°C	200
1N4569A	.5	.0005	.03	-55 to +100°C	200
1N4570	1.0	.01	.64	0 to +75°C	100
1N4570A	1.0	.01	.64	-55 to +100°C	100
1N4571	1.0	.005	.32	0 to +75°C	100
1N4571A	1.0	.005	.32	-55 to +100°C	100
1N4572	1.0	.002	.13	0 to +75°C	100
1N4572A	1.0	.002	.13	-55 to +100°C	100
1N4573	1.0	.001	.06	0 to +75°C	100
1N4573A	1.0	.001	.06	-55 to +100°C	100
1N4574	1.0	.0005	.03	0 to +75°C	100
1N4574A	1.0	.0005	.03	-55 to +100°C	100
1N4575	2.0	.01	.64	0 to +75°C	50
1N4575A	2.0	.01	.64	-55 to +100°C	50
1N4576	2.0	.005	.32	0 to +75°C	50
1N4576A	2.0	.005	.32	-55 to +100°C	50
1N4577	2.0	.002	.13	0 to +75°C	50
1N4577A	2.0	.002	.13	-55 to +100°C	50
1N4578	2.0	.001	.06	0 to +75°C	50
1N4578A	2.0	.001	.06	-55 to +100°C	50
1N4579	2.0	.0005	.03	0 to +75°C	50
1N4579A	2.0	.0005	.03	-55 to +100°C	50
1N4580	4.0	.01	.64	0 to +75°C	25
1N4580A	4.0	.01	.64	-55 to +100°C	25
1N4581	4.0	.005	.32	0 to +75°C	25
1N4581A	4.0	.005	.32	-55 to +100°C	25
1N4582	4.0	.002	.13	0 to +75°C	25
1N4582A	4.0	.002	.13	-55 to +100°C	25
1N4583	4.0	.001	.06	0 to +75°C	25
1N4583A	4.0	.001	.06	-55 to +100°C	25
1N4584	4.0	.0005	.03	0 to +75°C	25
1N4584A	4.0	.0005	.03	-55 to +100°C	25

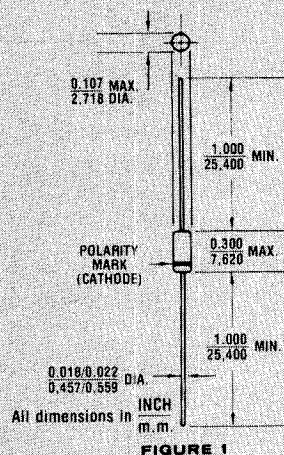
©JEDEC Registered Data

NOTE 1 For specific device selections above requiring tighter tolerances than $\pm 5\%$, inquire with factory as to nominal zener voltage available.

NOTE 2 Measured by superimposing rms AC current equal to 10% zener test current @ 25°C. The temperature coefficient of zener impedance is approx. $+0.3\%/^{\circ}\text{C}$.

NOTE 3 Voltage measurements to be performed 15 seconds after application of DC current.

6.4 VOLT TEMPERATURE COMPENSATED ZENER REFERENCE DIODES



MECHANICAL CHARACTERISTICS

CASE: Hermetically sealed glass case. DO-7.

FINISH: All external surfaces are corrosion resistant and leads solderable.

THERMAL RESISTANCE: 300°C/W (Typical) junction to lead at 0.375-inches from body.

POLARITY: Diode to be operated with the banded end positive with respect to the opposite end.

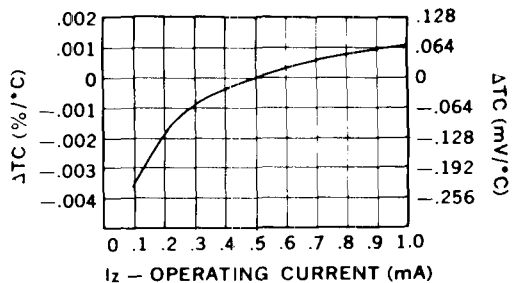
WEIGHT: 0.2 grams.

MOUNTING POSITION: Any.

For more information call:
(602) 941-6300

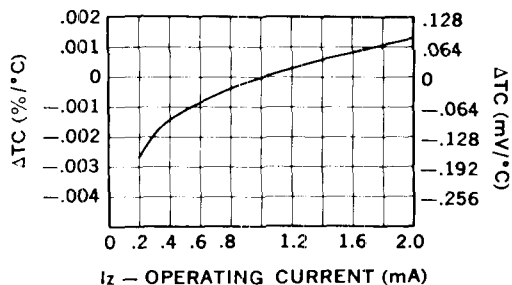
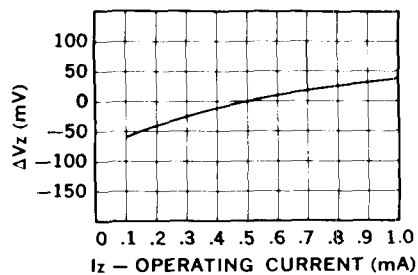
1N4565 thru 1N4584A

TYPICAL CHANGE OF
TEMPERATURE COEFFICIENT
WITH CHANGE IN
OPERATING CURRENT

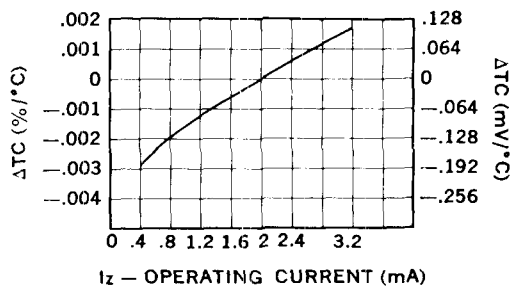
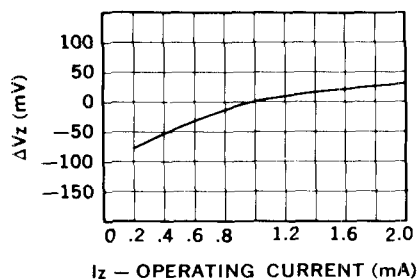


1N4565 — 1N4569A

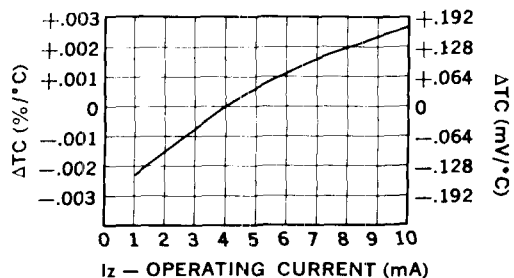
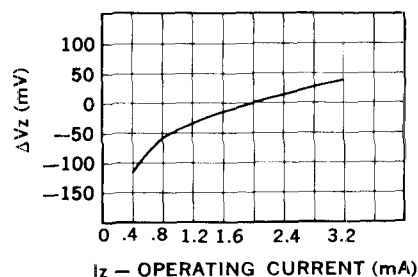
TYPICAL CHANGE
IN ZENER VOLTAGE
WITH CHANGE IN
OPERATING CURRENT



1N4570 — 1N4574A



1N4575 — 1N4579A



1N4580 — 1N4584A

