

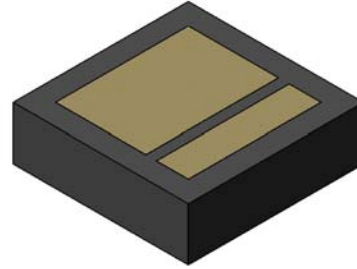
Zener Diode Chip Series

CD4565 thru CD4584A

Available in JANHC and JANKC per MIL-PRF-19500/452

Features

- All junctions completely protected with silicon dioxide
- 6.4 volt zener voltage $\pm 5\%$
- Electrically equivalent to 1N4565 thru 1N4584A
- Compatible with all wire bonding and die attach techniques with the exception of solder reflow



Maximum Ratings

Operating Temperature: -65°C to $+175^{\circ}\text{C}$
 Storage Temperature: -65°C to $+175^{\circ}\text{C}$
 Reverse Leakage Current: $I_R = 2\ \mu\text{A}$ @ 25°C & $V_R = 3\ \text{Vdc}$

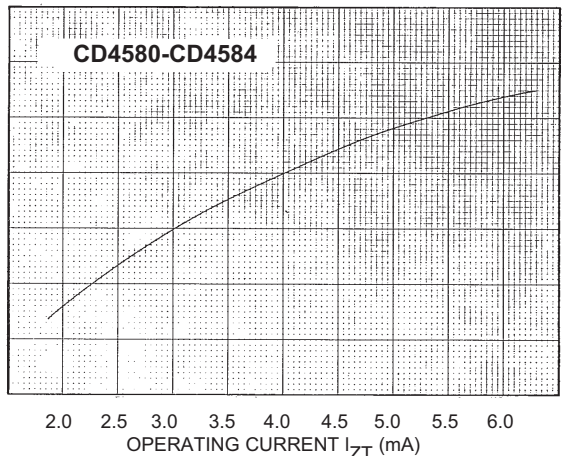
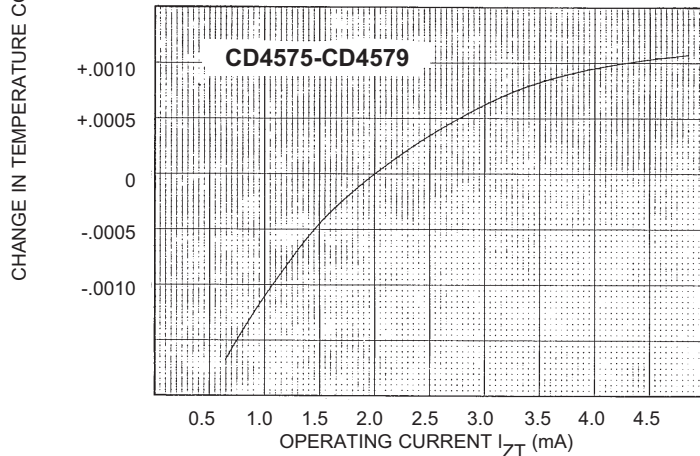
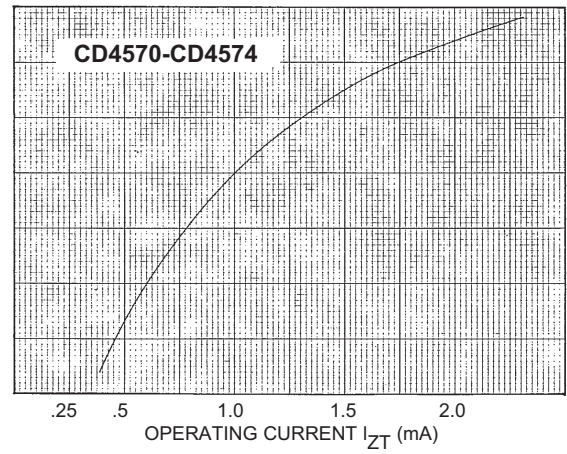
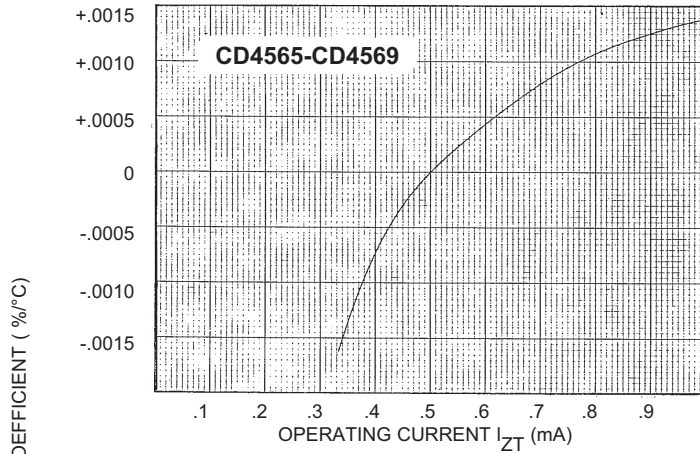
Electrical Specifications @ $+25^{\circ}\text{C}$ (Unless Otherwise Specified)

TYPE NUMBER 6.4V $\pm 5\%$	ZENER TEST CURRENT I_{ZT}	EFFECTIVE TEMPERATURE COEFFICIENT	VOLTAGE TEMPERATURE STABILITY ΔV_{ZT} MAX -55° to $+100^{\circ}$ (Note 2)	TEMPERATURE RANGE	MAXIMUM ZENER IMPEDANCE Z_{ZT} (Note 1)
	mA	%/ $^{\circ}\text{C}$	mV	$^{\circ}\text{C}$	OHMS
CD4565	0.5	0.01	48	0 to $+75^{\circ}\text{C}$	200
CD4565A	0.5	0.01	100	-55 to $+100^{\circ}\text{C}$	200
CD4566	0.5	0.005	24	0 to $+75^{\circ}\text{C}$	200
CD4566A	0.5	0.005	50	-55 to $+100^{\circ}\text{C}$	200
CD4567	0.5	0.002	10	0 to $+75^{\circ}\text{C}$	200
CD4567A	0.5	0.002	20	-55 to $+100^{\circ}\text{C}$	200
CD4568	0.5	0.001	5	0 to $+75^{\circ}\text{C}$	200
CD4568A	0.5	0.001	10	-55 to $+100^{\circ}\text{C}$	200
CD4569	0.5	0.0005	2.5	0 to $+75^{\circ}\text{C}$	200
CD4569A	0.5	0.0005	5	-55 to $+100^{\circ}\text{C}$	200
CD4570	1.0	0.01	48	0 to $+75^{\circ}\text{C}$	100
CD4570A	1.0	0.01	100	-55 to $+100^{\circ}\text{C}$	100
CD4571	1.0	0.005	24	0 to $+75^{\circ}\text{C}$	100
CD4571A	1.0	0.005	50	-55 to $+100^{\circ}\text{C}$	100
CD4572	1.0	0.002	10	0 to $+75^{\circ}\text{C}$	100
CD4572A	1.0	0.002	20	-55 to $+100^{\circ}\text{C}$	100
CD4573	1.0	0.001	5	0 to $+75^{\circ}\text{C}$	100
CD4573A	1.0	0.001	10	-55 to $+100^{\circ}\text{C}$	100
CD4574	1.0	0.0005	2.5	0 to $+75^{\circ}\text{C}$	100
CD4574A	1.0	0.0005	5	-55 to $+100^{\circ}\text{C}$	100
CD4575	2.0	0.01	48	0 to $+75^{\circ}\text{C}$	50
CD4575A	2.0	0.01	100	-55 to $+100^{\circ}\text{C}$	50
CD4576	2.0	0.005	24	0 to $+75^{\circ}\text{C}$	50
CD4576A	2.0	0.005	50	-55 to $+100^{\circ}\text{C}$	50
CD4577	2.0	0.002	10	0 to $+75^{\circ}\text{C}$	50
CD4577A	2.0	0.002	20	-55 to $+100^{\circ}\text{C}$	50
CD4578	2.0	0.001	5	0 to $+75^{\circ}\text{C}$	50
CD4578A	2.0	0.001	10	-55 to $+100^{\circ}\text{C}$	50
CD4579	2.0	0.0005	2.5	0 to $+75^{\circ}\text{C}$	50
CD4579A	2.0	0.0005	5	-55 to $+100^{\circ}\text{C}$	50
CD4580	4.0	0.01	48	0 to $+75^{\circ}\text{C}$	25
CD4580A	4.0	0.01	100	-55 to $+100^{\circ}\text{C}$	25
CD4581	4.0	0.005	24	0 to $+75^{\circ}\text{C}$	25
CD4581A	4.0	0.005	50	-55 to $+100^{\circ}\text{C}$	25
CD4582	4.0	0.002	10	0 to $+75^{\circ}\text{C}$	25
CD4582A	4.0	0.002	20	-55 to $+100^{\circ}\text{C}$	25
CD4583	4.0	0.001	5	0 to $+75^{\circ}\text{C}$	25
CD4583A	4.0	0.001	10	-55 to $+100^{\circ}\text{C}$	25
CD4584	4.0	0.0005	2.5	0 to $+75^{\circ}\text{C}$	25
CD4584A	4.0	0.0005	5	-55 to $+100^{\circ}\text{C}$	25

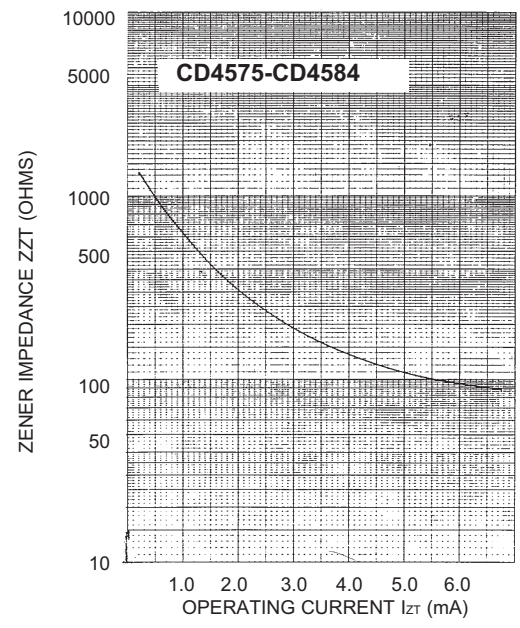
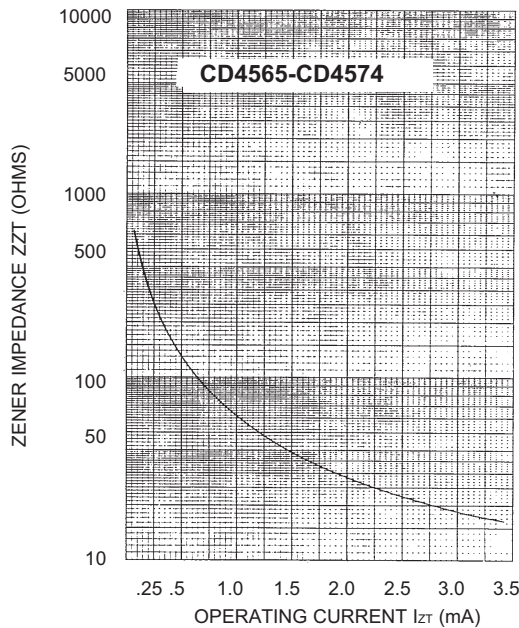
NOTE 1 Zener impedance is derived by superimposing on I_{ZT} a 60 Hz rms ac current equal to 10% of I_{ZT} .

NOTE 2 The maximum allowable change observed over the entire temperature range i.e., the diode voltage will not exceed the specialized mV at any discrete temperature between the established limits, per JEDEC standard No.5.

Graphs

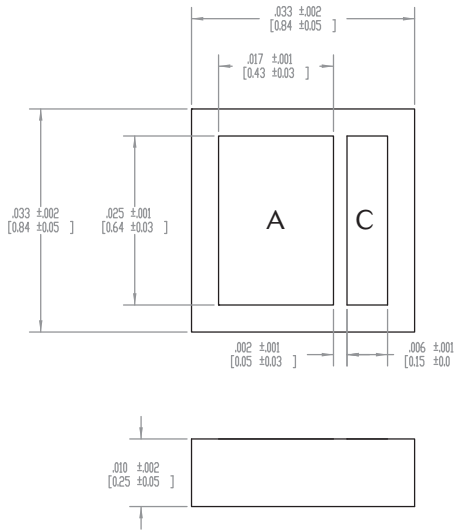


TYPICAL CHANGE OF TEMPERATURE COEFFICIENT WITH CHANGE IN OPERATING CURRENT



ZENER IMPEDANCE VS. OPERATING CURRENT

Outline Drawing



DESIGN DATA

METALLIZATION: Top: C (Cathode) Al
 A (Anode) Al
 Back: Au

AL THICKNESS: 25,000 Å Minimum

GOLD THICKNESS: 4,000 Å Minimum

CHIP THICKNESS: 10 Mils

CIRCUIT LAYOUT DATA: Backside must be electrically isolated.

Backside is not cathode: For Zener operation cathode must be operated positive with respect to anode.

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Our passion for performance is defined by three attributes represented by these three icons: solution-minded, performance-driven and customer-focused.