Zener Diode Chip Series

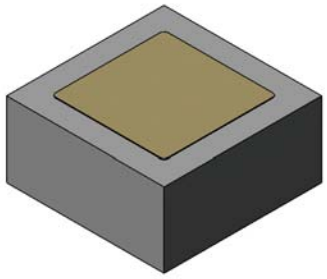
CD5518B thru CD5546B

Available in JANHC and JANKC per MIL-PRF-19500/437

AEROFLEX
A passion for performance.

Features

- All Junctions completely protected with silicon dioxide
- 0.5 Watt capability with proper heat sinking
- Electrically equivalent to 1N5518B thru 1N5546B
- Compatible with all wire bonding and die attach techniques with the exception of solder reflow



Maximum Ratings

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

Storage Temperature: -65°C to +175°C

Forward Voltage @ 200mA: 1.5 volts maximum

Electrical Specifications @ +25 °C (Unless Otherwise Specified)

TYPE NUMBER	NOMINAL ZENER VOLTAGE V_Z @ I_{ZT} (NOTE 1)	ZENER TEST CURRENT I_{ZT}	MAXIMUM ZENER IMPEDANCE Z_{ZT} @ I_{ZT} (NOTE 2)	MAXIMUM REVERSE LEAKAGE CURRENT		REGULATION FACTOR ΔV_Z (NOTE 3)	LOW VZ CURRENT I_{ZL}
				I_R	V_R		
	VOLTS	mAdc	OHMS	mAdc	VOLTS	VOLTS	mAdc
CD5518B	3.3	20	26	5.0	1.0	0.90	2.0
CD5519B	3.6	20	24	3.0	1.0	0.90	2.0
CD5520B	3.9	20	22	1.0	1.0	0.90	2.0
CD5521B	4.3	20	18	3.0	1.5	0.75	2.0
CD5522B	4.7	10	22	2.0	2.0	0.60	1.0
CD5523B	5.1	5.0	26	2.0	2.5	0.65	0.25
CD5524B	5.6	3.0	30	2.0	3.5	0.30	0.25
CD55258	6.2	1.0	30	1.0	5.0	0.20	0.01
CD5526B	6.8	1.0	30	1.0	6.2	0.10	0.01
CD5527B	7.5	1.0	35	0.5	6.8	0.05	0.01
CD5528B	8.2	1.0	40	0.5	7.5	0.05	0.01
CD5529B	9.1	1.0	45	0.1	8.2	0.05	0.01
CD55308	10.0	1.0	60	0.05	9.1	0.10	0.01
CD5531B	11.0	1.0	80	0.05	9.9	0.20	0.01
CD5532B	12.0	1.0	90	0.05	10.8	0.20	0.01
CD5533B	13.0	1.0	90	0.01	11.7	0.20	0.01
CD5534B	14.0	1.0	100	0.01	12.6	0.20	0.01
CD5535B	15.0	1.0	100	0.01	13.5	0.20	0.01
CD5536B	16.0	1.0	100	0.01	14.4	0.20	0.01
CD5537B	17.0	1.0	100	0.01	15.3	0.20	0.01
CD5538B	18.0	1.0	100	0.01	16.2	0.20	0.01
CD5539B	19.0	1.0	100	0.01	17.1	0.20	0.01
CD5540B	20.0	1.0	100	0.01	18.0	0.20	0.01
CD5541B	22.0	1.0	100	0.01	19.8	0.25	0.01
CD5542B	24.0	1.0	100	0.01	21.6	0.30	0.01
CD5543B	25.0	1.0	100	0.01	22.4	0.35	0.01
CD5544B	28.0	1.0	100	0.01	25.2	0.40	0.01
CD5545B	30.0	1·0	100	0.01	27.0	0.45	0.01
CD5546B	33.0	1.0	100	0.01	29.7	0.50	0.01

NOTE 1 Suffix "B" voltage range equals nominal Zener voltage. ± 5%. Suffix "A" equals ± 10 %. "C" suffix=.± 2 % and "D" suffix= ± 1 %.No Suffix equals ± 20 %. Zener voltage is read using a pulse measurement, 10 milliseconds maximum.

NOTE 2 Zener impedance is derived by superimposing on I_{ZT} a 60Hz rms ac current equal to 10 % of I_{ZT}.

NOTE 3 ΔV_Z is the maximum difference between V_Z-@ I_{ZT} and VZ at I_{ZL} measured with the device junction in thermal equilibnum at an ambient temperature of +25° ± 3°C.

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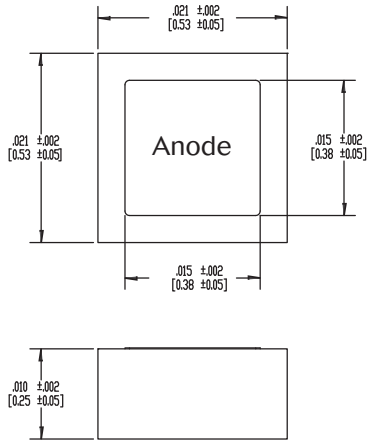
METELICS

Revision Date: 12/6/2013

Outline Drawing



DESIGN DATA

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

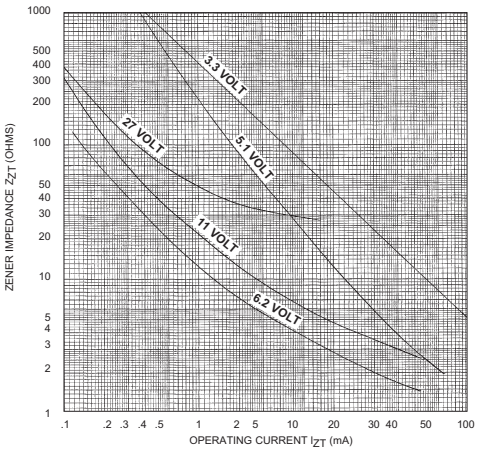
AL THICKNESS: 25,000 Å Minimum

GOLD THICKNESS: 4,000 Å Minimum

CHIP THICKNESS: 10 Mils

CIRCUIT LAYOUT DATA: For Zener operation, cathode must be operated positive with respect to anode.

Graphs



ZENER IMPEDANCE VS. OPERATING CURRENT

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A passion for performance.

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

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