

ZE1.3C

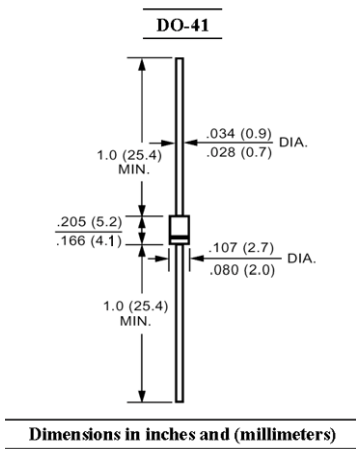
SILICON PLANAR POWER ZENER DIODES

Features

- Low dynamic resistance
- High reliability

Mechanical Data

- **Case:** DO-41 Molded plastic
- **Epoxy:** UL 94V-0 rate flame retardant
- **Terminals:** Plated axial leads, solderable per MIL-STD-202 method 208C
- **Polarity:** Color band denotes cathode end
- **Mounting position:** Any



Absolute Maximum Ratings ($T_a = 25\text{ }^{\circ}\text{C}$)

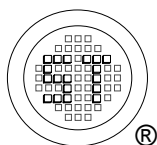
Parameter	Symbol	Value	Unit
Power Dissipation	P_{tot}	1.3 ¹⁾	W
Junction Temperature	T_j	200	$^{\circ}\text{C}$
Storage Temperature Range	T_s	- 50 to + 200	$^{\circ}\text{C}$

¹⁾ Valid provided that leads at a distance of 9.5 mm from case are kept at ambient temperature.

Characteristics at $T_a = 25\text{ }^{\circ}\text{C}$

Parameter	Symbol	Max.	Unit
Thermal Resistance Junction to Ambient Air	R_{thA}	130 ¹⁾	K/W
Forward Voltage at $I_F = 200\text{ mA}$	V_F	1	V

¹⁾ Valid provided that leads at a distance of 9.5 mm from case are kept at ambient temperature.



SEMTECH ELECTRONICS LTD.
(Subsidiary of Sino-Tech International Holdings Limited, a company
listed on the Hong Kong Stock Exchange, Stock Code: 724)



ISO/TS 16949 : 2002
Certificate No. 05103



ISO 14001:2004
Certificate No. 7116



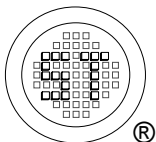
ISO 9001:2000
Certificate No. 0506088

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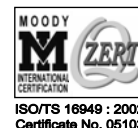
Characteristics at $T_a = 25\text{ }^{\circ}\text{C}$

Type	Zener Voltage Range ¹⁾			Dynamic Resistance				Reverse Leakage Current	
	V_{znom}	V_{ZT}	at I_{ZT}	Z_{ZT}	at I_{ZT}	Z_{ZK}	at I_{ZK}	I_R	at V_R
	V	mA	V	Max. (Ω)	mA	Max. (Ω)	mA	Max. (μA)	V
ZE1.3C2V7	2.7	2.5...2.9	80	20	80	400	1	150	1
ZE1.3C3V0	3.0	2.8...3.2	80	20	80	400	1	100	1
ZE1.3C3V3	3.3	3.1...3.5	70	20	70	400	1	40	1
ZE1.3C3V6	3.6	3.4...3.8	60	15	60	500	1	20	1
ZE1.3C3V9	3.9	3.7...4.1	60	15	60	500	1	10	1
ZE1.3C4V3	4.3	4...4.6	50	13	50	500	1	3	1
ZE1.3C4V7	4.7	4.4...5	45	13	45	600	1	3	1
ZE1.3C5V1	5.1	4.8...5.4	45	10	45	500	1	1	1.5
ZE1.3C5V6	5.6	5.2...6	45	7	45	400	1	1	2
ZE1.3C6V2	6.2	5.8...6.6	35	4	35	300	1	1	3
ZE1.3C6V8	6.8	6.4...7.2	35	3.5	35	300	1	1	4
ZE1.3C7V5	7.5	7.0...7.9	35	3	35	200	0.5	1	4.5
ZE1.3C8V2	8.2	7.7...8.7	25	5	25	200	0.5	1	6.2
ZE1.3C9V1	9.1	8.5...9.6	25	5	25	200	0.5	1	6.8
ZE1.3C10	10	9.4...10.6	25	7	25	200	0.5	0.5	7
ZE1.3C11	11	10.4...11.6	20	8	20	300	0.5	0.5	8.2
ZE1.3C12	12	11.4...12.7	20	9	20	350	0.5	0.5	9.1
ZE1.3C13	13	12.4...14.1	20	10	20	400	0.5	0.5	10
ZE1.3C15	15	13.8...15.6	15	15	15	500	0.5	0.5	11
ZE1.3C16	16	15.3...17.1	15	15	15	500	0.5	0.5	12
ZE1.3C18	18	16.8...19.1	15	20	15	500	0.5	0.5	13
ZE1.3C20	20	18.8...21.2	10	24	10	600	0.5	0.5	15
ZE1.3C22	22	20.8...23.3	10	25	10	600	0.5	0.5	16
ZE1.3C24	24	22.8...25.6	10	25	10	600	0.5	0.5	18
ZE1.3C27	27	25.1...28.9	8	30	8	750	0.25	0.5	20
ZE1.3C30	30	28...32	8	30	8	1000	0.25	0.5	22
ZE1.3C33	33	31...35	8	35	8	1000	0.25	0.5	24
ZE1.3C36	36	34...38	8	40	8	1000	0.25	0.5	27
ZE1.3C39	39	37...41	6	50	6	1000	0.25	0.5	30
ZE1.3C43	43	40...46	6	50	6	1000	0.25	0.5	33
ZE1.3C47	47	44...50	4	90	4	1500	0.25	0.5	36
ZE1.3C51	51	48...54	4	115	4	1500	0.25	0.5	39
ZE1.3C56	56	52...60	4	120	4	2000	0.25	0.5	43
ZE1.3C62	62	58...66	4	125	4	2000	0.25	0.5	47
ZE1.3C68	68	64...72	4	130	4	2000	0.25	0.5	51
ZE1.3C75	75	70...79	4	135	4	2000	0.25	0.5	56
ZE1.3C82	82	77...87	2.7	200	2.7	3000	0.25	0.5	62
ZE1.3C91	91	85...96	2.7	250	2.7	3000	0.25	0.5	68
ZE1.3C100	100	94...106	2.7	350	2.7	3000	0.25	0.5	75
ZE1.3C110	110	104...116	2.7	450	2.7	4000	0.25	0.5	82
ZE1.3C120	120	114...127	2	550	2	4500	0.25	0.5	91
ZE1.3C130	130	124...141	2	700	2	5000	0.25	0.5	100
ZE1.3C150	150	138...156	2	1000	2	6000	0.25	0.5	110
ZE1.3C160	160	153...171	1.5	1100	1.5	6500	0.25	0.5	120
ZE1.3C180	180	168...191	1.5	1200	1.5	7000	0.25	0.5	130
ZE1.3C200	200	188...212	1.5	1500	1.5	8000	0.25	0.5	150

¹⁾ Tested with pulses $t_p = 20\text{ ms}$.



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