

Silicon Planar Zener Diodes

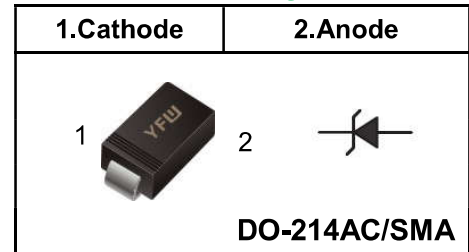
FEATURES

- ◆ Total power dissipation: Max. 3.0 W.
- ◆ Wide zener reverse voltage range 3.9V to 400V.
- ◆ High peak reverse power dissipation
- ◆ High reliability
- ◆ Low leakage current
- ◆ Lead free in comply with EU RoHS 2011/65/EU directives

MECHANICAL DATA

- ◆ Case: DO-214AC/SMA
- ◆ Terminals: Solderable per MIL-STD-750, Method 2026
- ◆ Approx. Weight: 0.064g

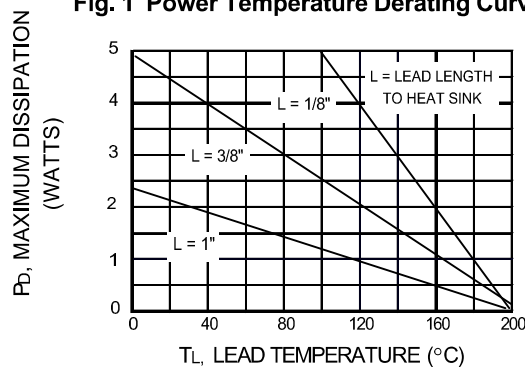
Pinning



Absolute Maximum Ratings And Characteristics (Ta = 25 °C)

Parameter	Symbol	Value	Unit
Power Dissipation at TL=75°C	P_D	3.0	W
Forward Voltage at IF = 200 mA	V_F	1.5	V
Junction Temperature Range	T_J	55 ~ +175	°C
Storage Temperature Range	T_s	-55 ~ +175	°C

Fig. 1 Power Temperature Derating Curve



ELECTRICAL CHARACTERISTICS Rating at = 25 °C ambient temperature unless otherwise specified

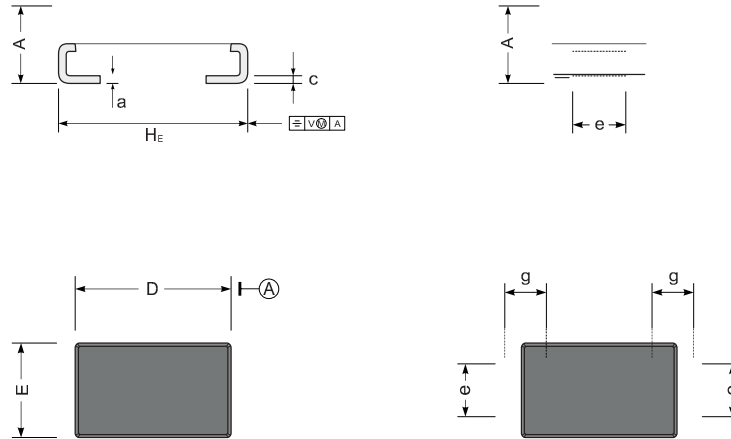
TYPE	Nominal Zener Voltage		Maximum Zener Impedance			Maximum Reverse Leakage Current		Maximum DC Zener Current
	Vz @ IzT	IzT	ZzT @ IzT	Zzk @ Izk	Izk	IR @ VR		IzM
	(V)	(mA)	(Ω)	(Ω)	(mA)	(μA)	(V)	(mA)
BZG03C3V9	3.9	192	4.5	400	1.0	80	1.0	630
BZG03C4V3	4.3	174	4.5	400	1.0	30	1.0	590
BZG03C4V7	4.7	160	4.0	500	1.0	20	1.0	550
BZG03C5V1	5.1	147	3.5	550	1.0	5.0	1.0	520
BZG03C5V6	5.6	134	2.5	600	1.0	5.0	2.0	480
BZG03C6V2	6.2	121	1.5	700	1.0	5.0	3.0	435
BZG03C6V8	6.8	110	2.0	700	1.0	50	4.0	393
BZG03C7V5	7.5	100	2.0	700	0.5	50	5.0	360
BZG03C8V2	8.2	91	2.3	700	0.5	50	6.0	330
BZG03C9V1	9.1	82	2.5	700	0.5	50	7.0	297
BZG03C10	10	75	3.5	700	0.3	50	7.6	270
BZG03C11	11	68	4.0	700	0.25	50	8.4	225
BZG03C12	12	63	4.5	700	0.25	1.0	9.1	246
BZG03C13	13	58	4.5	700	0.25	0.5	9.1	208
BZG03C14	14	53	5.0	700	0.25	0.5	10.6	193
BZG03C15	15	50	5.5	700	0.25	0.5	11.4	180
BZG03C16	16	47	5.5	700	0.25	0.5	12.2	169
BZG03C17	17	44	6.0	750	0.25	0.5	13.0	159
BZG03C18	18	42	6.0	750	0.25	0.5	13.7	150
BZG03C19	19	40	7.0	750	0.25	0.5	14.4	142
BZG03C20	20	37	7.0	750	0.25	0.5	15.2	135
BZG03C22	22	34	8.0	750	0.25	0.5	16.7	123
BZG03C24	24	31	9.0	750	0.25	0.5	18.2	112
BZG03C27	27	28	10	750	0.25	0.5	20.6	100
BZG03C28	28	27	12	750	0.25	0.5	21.0	96
BZG03C30	30	25	16	1000	0.25	0.5	22.5	90
BZG03C33	33	23	20	1000	0.25	0.5	25.1	82
BZG03C36	36	21	22	1000	0.25	0.5	27.4	75
BZG03C39	39	19	28	1000	0.25	0.5	29.7	69
BZG03C43	43	17	33	1500	0.25	0.5	32.7	63
BZG03C47	47	16	38	1500	0.25	0.5	35.6	57
BZG03C51	51	15	45	1500	0.25	0.5	38.8	53
BZG03C56	56	13	50	2000	0.25	0.5	42.6	48
BZG03C62	62	12	55	2000	0.25	0.5	47.1	44
BZG03C68	68	11	70	2000	0.25	0.5	51.7	40
BZG03C75	75	10	85	2000	0.25	0.5	56.0	36
BZG03C82	82	9.1	95	3000	0.25	0.5	62.2	33
BZG03C91	91	8.2	115	3000	0.25	0.5	69.2	30
BZG03C100	100	7.5	160	3000	0.25	0.5	76.0	27

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	Vz @ IzT	IzT	ZzT @ IzT	Zzk @ IzK	IzK	IR @ VR		IzM
	(V)	(mA)	(Ω)	(Ω)	(mA)	(μA)	(V)	(mA)
BZG03C110	110	6.8	225	4000	0.25	0.5	83.6	25
BZG03C120	120	6.3	300	4500	0.25	0.5	91.2	22
BZG03C130	130	5.8	375	5000	0.25	0.5	98.8	21
BZG03C140	140	5.3	475	5000	0.25	0.5	106.4	19
BZG03C150	150	5.0	550	6000	0.25	0.5	114.0	18
BZG03C160	160	4.7	625	6500	0.25	0.5	121.6	17
BZG03C170	170	4.4	650	7000	0.25	0.5	130.4	16
BZG03C180	180	4.2	700	7000	0.25	0.5	136.8	15
BZG03C190	190	4.0	800	8000	0.25	0.5	144.8	14
BZG03C200	200	3.7	875	8000	0.25	0.5	152.0	13
BZG03C220	220	3.4	1600	9000	0.25	1	167.0	12
BZG03C240	240	3.1	1700	9000	0.25	1	182.0	11
BZG03C270	270	2.8	1800	9000	0.25	1	205.0	10
BZG03C300	300	2.5	1900	9000	0.25	1	228.0	9
BZG03C330	330	2.3	2200	9000	0.25	1	251.0	8
BZG03C360	360	2.1	2700	9000	0.25	1	274.0	8
BZG03C400	400	1.9	3500	9000	0.25	1	304.0	7

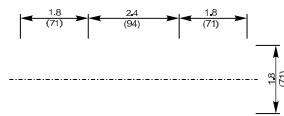
Package Outline DO-214AC SMA

Plastic surface mounted package; 2 leads



UNIT		A	D	E	H _E	c	e	g	a
mm	max	2.42	4.5	2.80	5.2	0.31	1.6	1.5	0.3
	min	1.98	4.0	2.54	4.7	0.15	1.3	0.9	
mil	max	96	181	110	205	12	63	59	12
	min	78	157	100	185	6	51	35	

The recommended mounting pad size



Unit : $\frac{\text{mm}}{\text{(mil)}}$

Summary of Packing Options

Package	Packing Description	Packing Quantity	Industry Standard
DO-214AC SMA	Tape/Reel, 11" reel	5000	EIA-481-1
	Tape/Reel, 7" reel	2000	EIA-481-1