



SURFACE MOUNT PRECISION ZENER DIODE

Features

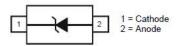
- Very Sharp Breakdown Characteristics
- Very Tight Tolerance on Vz
- Ideally Suited for Automated Assembly Processes
- Very Low Leakage Current
- Totally Lead-Free & Fully RoHS Compliant (Notes 1 & 2)
- Halogen and Antimony Free. "Green" Device (Note 3)

Mechanical Data

- Case: SOD323
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020
- Terminals: Finish Matte Tin Annealed over Alloy 42 Leadframe; Solderable per MIL-STD-202, Method 208 33
- Polarity: Cathode Band
- Weight: 0.004 grams (Approximate)

SOD323





Top View

Device Schematic

Ordering Information (Note 4)

Part Number	Compliance	Case	Packaging
(Type Number)-7*	Commercial	SOD323	3,000/Tape & Reel

The part number for the 6.2 Volt device would be DDZ6V2BS-7. * Example: Notes:

1. No purposely added lead. Fully EU Directive 2002/95/EC (RoHS) & 2011/65/EU (RoHS 2) compliant.

2. See http://www.diodes.com/quality/lead_free.html for more information about Diodes Incorporated's definitions of Halogen- and Antimony-free, "Green" and Lead-free.

3. Halogen- and Antimony-free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

4. For packaging details, go to our website at http://www.diodes.com/products/packages.html.

Marking Information

SOD323



xx = Product Type Marking Code (See Electrical Characteristics Table)



Maximum Ratings (@T_A = +25°C, unless otherwise specified.)

Characterist	ic	Symbol	Value	Unit
Forward Voltage	@ I _F = 10mA	V _F	0.9	V

Thermal Characteristics

Characteristic		Symbol	Value	Unit
Power Dissipation	(Note 5)	PD	200	mW
Thermal Resistance, Junction to Ambient Air	(Note 5)	$R_{\theta JA}$	625	°C/W
Operating and Storage Temperature Range		T _{J,} T _{STG}	-65 to +150	°C

Note: 5. Device mounted on FR-4 PC board with recommended pad layout which can be found on our website at http://www.diodes.com/package-outlines.html.

Electrical Characteristics (@T_A = +25°C, unless otherwise specified.)

Tura Number Madin Code		Zener Voltage Range (Note 6)		Maximum Zener Impedance (Note 7)			Maximum Reverse Current (Note 8)		
Type Number	Marking Code	Vz @	2 Izt	IZT	Z _{ZT} @ I _{ZT}	Zzк @ Іzк	Izĸ	IR	@ V _R
		Min (V)	Max (V)	mA		Ω	mA	μA	V
DDZ5V1BS	KM	4.94	5.20	20	17	480	1	5	1.5
DDZ5V6BS	KN	5.45	5.73	20	11	400	1	0.5	2.5
DDZ6V2BS	KO	5.96	6.27	20	7	150	1	0.5	4.0
DDZ6V8CS	YP	6.66	7.01	20	5	150	0.5	0.5	5.0
DDZ7V5CS	YQ	7.29	7.67	20	6	120	0.5	0.5	6.0
DDZ8V2CS	YR	8.03	8.45	20	8	120	0.5	0.5	6.5
DDZ9V1CS	YS	8.83	9.30	20	8	120	0.5	0.5	7.0
DDZ10CS	YT	9.70	10.20	20	8	120	0.5	0.1	8.0
DDZ11CS	YU	10.82	11.38	10	10	120	0.5	0.1	8.4
DDZ12CS	YV	11.74	12.35	10	12	110	0.5	0.1	9.1
DDZ13BS	KW	12.55	13.21	10	14	110	0.5	0.1	10.0
DDZ14S	GX	13.65	14.35	10	16	110	0.5	0.05	11.0
DDZ15S	GY	14.80	15.57	10	18	150	0.5	0.05	12.0
DDZ16S	YY	15.69	16.51	10	18	150	0.5	0.05	12.0
DDZ18CS	YZ	17.42	18.33	10	23	150	0.5	0.05	14.0
DDZ20CS	PJ	19.23	20.22	10	28	200	0.5	0.05	15.0
DDZ22DS	2K	21.52	22.63	5	30	200	0.5	0.05	17.0
DDZ24CS	PL	23.12	24.31	5	35	200	0.5	0.05	19.0
DDZ27DS	2M	26.29	27.64	5	45	250	0.5	0.05	21.0
DDZ30DS	2N	29.02	30.51	5	55	250	0.5	0.05	23.0
DDZ33S	RP	32.14	33.79	5	75	250	0.5	0.05	27.0
DDZ36S	ZQ	35.36	37.19	5	85	250	0.5	0.05	30.0
DDZ39FS	5Q	38.02	39.98	5	85	250	0.5	0.05	30.0
DDZ43S	ZR	42.14	43.86	5	90			0.05	33.0
DDZ47S	ZS	46.06	47.94	5	90		_	0.05	36.0

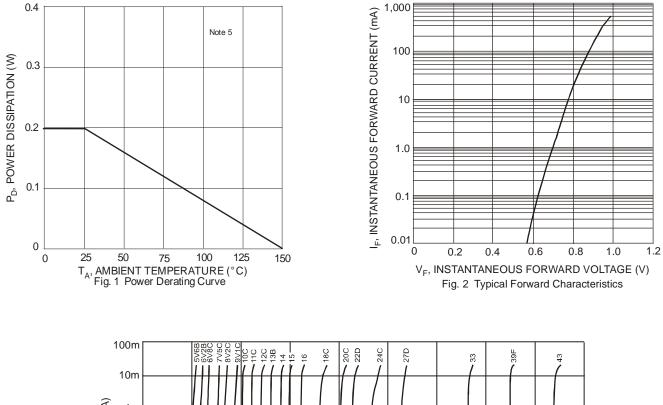
Notes:

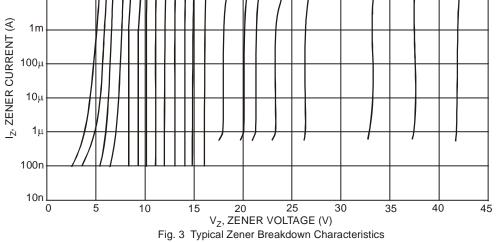
6. The Zener voltage is measured <40ms after power is supplied.

7. f = 1kHz.

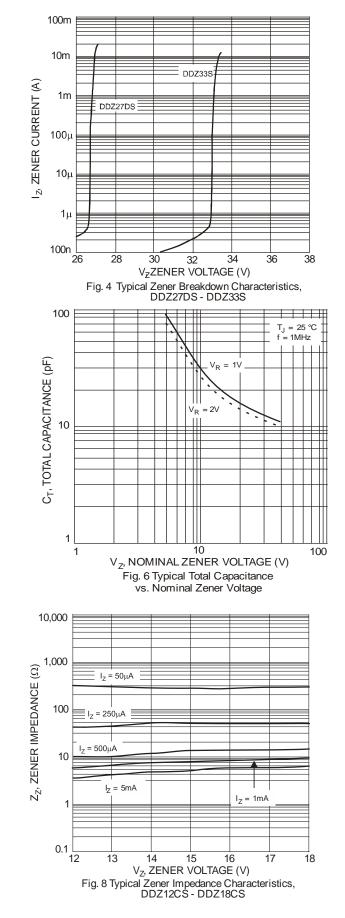
8. Short duration pulse test used to minimize self-heating effect.

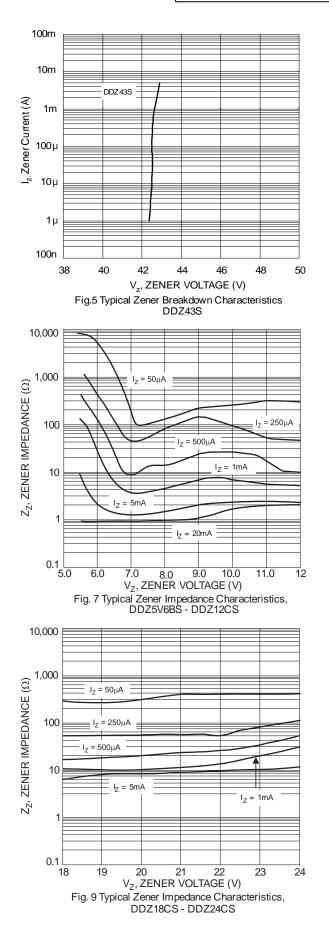






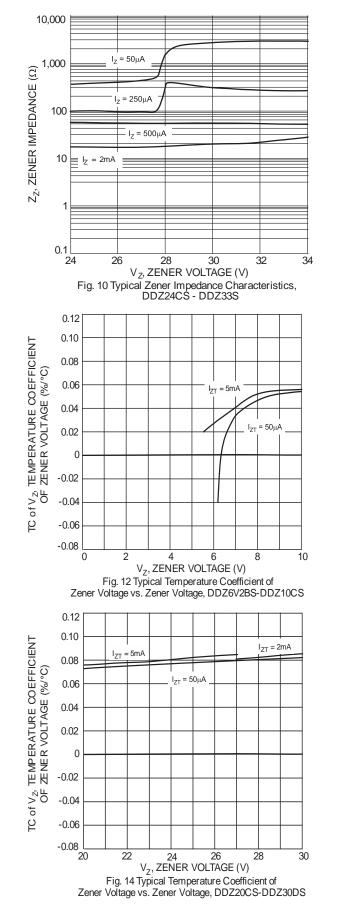


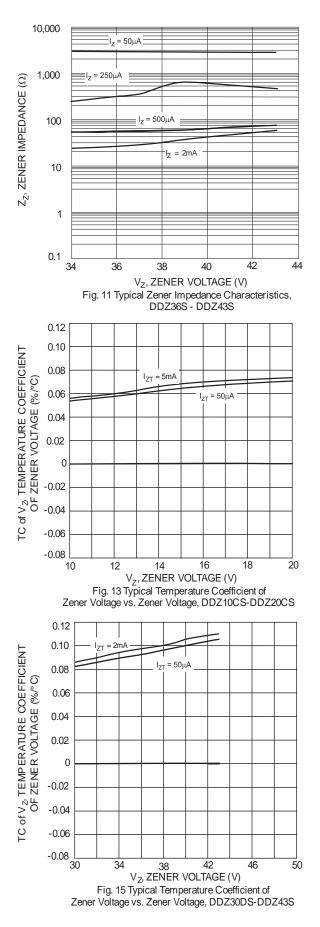




DDZ5V1BS - DDZ47S Document number: DS30414 Rev. 10 - 2 Downloaded from Arrow.com.



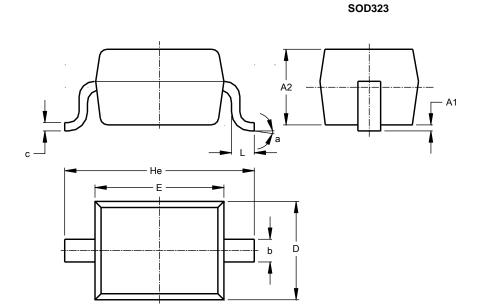






Package Outline Dimensions

Please see http://www.diodes.com/package-outlines.html for the latest version.

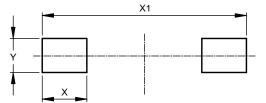


SOD323					
Dim	Min	Max	Тур		
A1		0.10	0.05		
A2	1.00	1.10	1.05		
b	0.25	0.35	0.30		
С	0.10	0.15	0.11		
D	1.20	1.40	1.30		
Е	1.60	1.80	1.70		
He	2.30	2.70	2.50		
L	0.20	0.40	0.30		
а	0°	8º			
All Dimensions in mm					

Suggested Pad Layout

Please see http://www.diodes.com/package-outlines.html for the latest version.

SOD323



Dimensions	Value (in mm)
Х	0.590
X1	2.700
Y	0.450



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