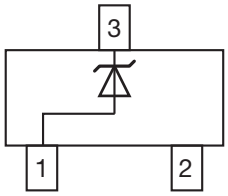
Small Signal Zener Diodes





FEATURES

- Silicon planar Zener diodes
- Standard Zener voltage tolerance is ± 5 %
- AEC-Q101 qualified available
  (part number on request)
- ESD capability according to AEC-Q101:
  Human body model > 8 kV
  Machine model > 800 V
- Base P/N-G3 - green, commercial grade
- Material categorization:
  for definitions of compliance please see www.vishay.com/doc?99912

Pb-free

e3

RoHS COMPLIANT

HALOGEN FREE GREEN (5-2008)

DESIGN SUPPORT TOOLS

click logo to get started

3D Models Available

PRIMARY CHARACTERISTICS		
PARAMETER	VALUE	UNIT
V_Z range nom.	2.4 to 43	V
Test current I_{ZT}	0.05	mA
V_Z specification	Pulse current	
Circuit configuration	Single	

ORDERING INFORMATION			
DEVICE NAME	ORDERING CODE	TAPED UNITS PER REEL	MINIMUM ORDER QUANTITY
MMBZ4681-G to MMBZ4717-G	MMBZ4681-G3-08 to MMBZ4717-G3-08	3000 (8 mm tape on 7" reel)	15 000
	MMBZ4681-G3-18 to MMBZ4717-G3-18	10 000 (8 mm tape on 13" reel)	10 000

PACKAGE				
PACKAGE NAME	WEIGHT	MOLDING COMPOUND FLAMMABILITY RATING	MOISTURE SENSITIVITY LEVEL	SOLDERING CONDITIONS
SOT-23	8.8 mg	UL 94 V-0	MSL level 1 (according J-STD-020)	260 °C/10 s at terminals

ABSOLUTE MAXIMUM RATINGS (T_{amb} = 25 °C, unless otherwise specified)				
PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Power dissipation	On FR - 5 board using recommended solder pad layout	P_{tot}	350	mW
Zener current	See table “Electrical Characteristics”			
Thermal resistance junction to ambient air	On FR - 5 board using recommended solder pad layout	R_{thJA}	420	K/W
Junction temperature, maximum		T_j	150	°C
Storage temperature range		T_{stg}	-55 to +150	°C
Operating temperature range		T_{op}	-55 to +150	°C

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ELECTRICAL CHARACTERISTICS (T_{amb} = 25 °C, unless otherwise specified)

PART NUMBER	MARKING CODE	ZENER VOLTAGE RANGE (1)			TEST CURRENT	REVERSE CURRENT		VOLTAGE CHANGE (2)
		V_Z at I_{ZT1}			I_{ZT1}	I_R at V_R		ΔV_Z
		V			mA	µA	V	V
		MIN.	NOM.	MAX.		MAX.		MAX.
MMBZ4681-G	TF	2.28	2.4	2.52	0.05	2	1	0.8
MMBZ4682-G	TH	2.57	2.7	2.84	0.05	1	1	0.85
MMBZ4683-G	TJ	2.85	3	3.15	0.05	0.8	1	0.9
MMBZ4684-G	TK	3.14	3.3	3.47	0.05	7.5	1.5	0.95
MMBZ4685-G	TM	3.42	3.6	3.78	0.05	7.5	2	0.95
MMBZ4686-G	TN	3.71	3.9	4.1	0.05	5	2	0.97
MMBZ4687-G	TP	4.09	4.3	4.52	0.05	4	2	0.99
MMBZ4688-G	TT	4.47	4.7	4.94	0.05	10	3	0.99
MMBZ4689-G	TU	4.85	5.1	5.36	0.05	10	3	0.97
MMBZ4690-G	TV	5.32	5.6	5.88	0.05	10	4	0.96
MMBZ4691-G	TA	5.89	6.2	6.51	0.05	10	5	0.95
MMBZ4692-G	TX	6.46	6.8	7.14	0.05	10	5.1	0.9
MMBZ4693-G	TY	7.13	7.5	7.88	0.05	10	5.7	0.75
MMBZ4694-G	TZ	7.79	8.2	8.61	0.05	1	6.2	0.5
MMBZ4695-G	UC	8.27	8.7	9.14	0.05	1	6.6	0.1
MMBZ4696-G	UD	8.65	9.1	9.56	0.05	1	6.9	0.08
MMBZ4697-G	UE	9.5	10	10.5	0.05	1	7.6	0.1
MMBZ4698-G	UF	10.5	11	11.6	0.05	0.05	8.4	0.11
MMBZ4699-G	UH	11.4	12	12.6	0.05	0.05	9.1	0.12
MMBZ4700-G	UJ	12.4	13	13.7	0.05	0.05	9.8	0.13
MMBZ4701-G	UK	13.3	14	14.7	0.05	0.05	10.6	0.14
MMBZ4702-G	UM	14.3	15	15.8	0.05	0.05	11.4	0.15
MMBZ4703-G	UN	15.2	16	16.8	0.05	0.05	12.1	0.16
MMBZ4704-G	UP	16.2	17	17.9	0.05	0.05	12.9	0.17
MMBZ4705-G	UT	17.1	18	18.9	0.05	0.05	13.6	0.18
MMBZ4706-G	UU	18.1	19	20	0.05	0.05	14.4	0.19
MMBZ4707-G	UV	19	20	21	0.05	0.01	15.2	0.2
MMBZ4708-G	UA	20.9	22	23.1	0.05	0.01	16.7	0.22
MMBZ4709-G	UZ	22.8	24	25.2	0.05	0.01	18.2	0.24
MMBZ4710-G	UY	23.8	25	26.3	0.05	0.01	19	0.25
MMBZ4711-G	ZA	25.7	27	28.4	0.05	0.01	20.4	0.27
MMBZ4712-G	ZC	26.6	28	29.4	0.05	0.01	21.2	0.28
MMBZ4713-G	ZD	28.5	30	31.5	0.05	0.01	22.8	0.3
MMBZ4714-G	ZE	31.4	33	34.7	0.05	0.01	25	0.33
MMBZ4715-G	ZF	34.2	36	3.7.8	0.05	0.01	27.3	0.36
MMBZ4716-G	ZH	37.1	39	41	0.05	0.01	29.6	0.39
MMBZ4717-G	ZJ	40.9	43	45.2	0.05	0.01	32.6	0.43

Notes

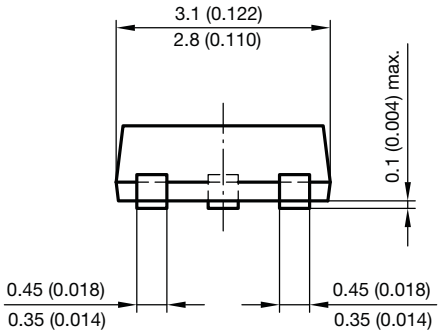
- Maximum V_F = 0.9 V, at I_F = 10 mA

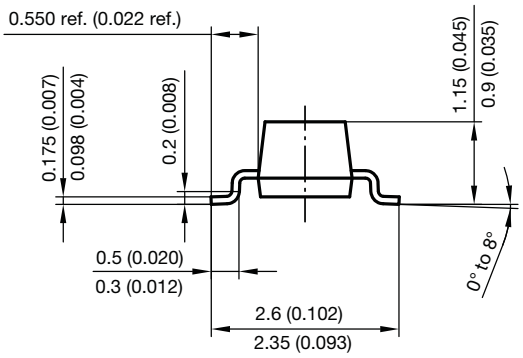
(1) Tested with pulse test current

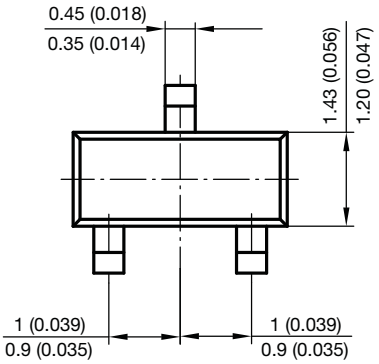
(2) Maximum voltage change (V_Z). Voltage change is equal to the difference between V_Z at 100 µA and V_Z at 10 µA.

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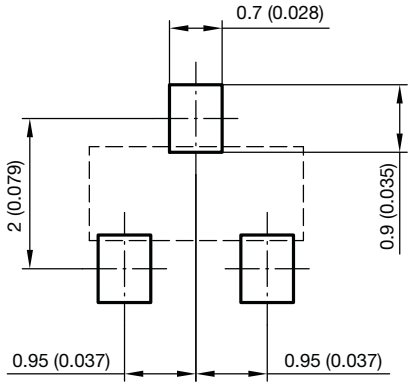
PACKAGE DIMENSIONS in millimeters (inches): **SOT-23**







Foot print recommendation:



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17418

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