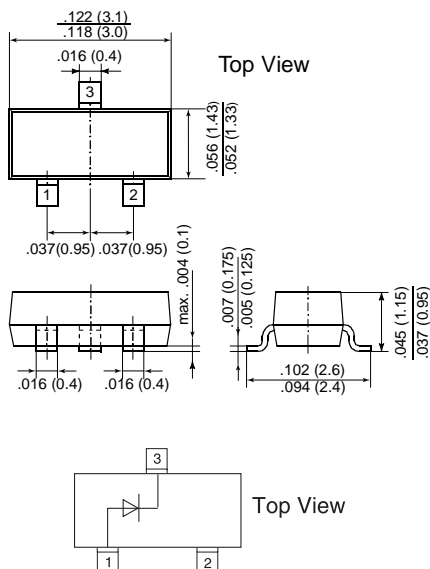


# MMBZ4681 THRU MMBZ4717

## ZENER DIODES

### SOT-23



Dimensions in inches and (millimeters)

### FEATURES

- ◆ Silicon Planar Zener Diodes
- ◆ Standard Zener voltage tolerance is  $\pm 5\%$ . Other tolerances are available upon request
- ◆ High temperature soldering guaranteed: 250°C/10 seconds at terminals.
- ◆ These diodes are also available in DO-35 case with the type designation 1N4681 ... 1N4717 and SOD-123 case with the type designation MMSZ4681 ... MMSZ4717.



### MECHANICAL DATA

**Case:** SOT-23 Plastic Package

**Weight:** approx. 0.008 g

**Terminals:** Solderable per MIL-STD-750, method 2026.

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

	SYMBOL	VALUE	UNIT
Zener Current (see Table "Characteristics")			
Power Dissipation at $T_A = 25^\circ\text{C}$	$P_{\text{tot}}$	350 <sup>(1)</sup>	mW
Maximum Junction Temperature	$T_j$	150	°C
Storage Temperature Range	$T_s$	-55 to +150	°C

	SYMBOL	MIN.	TYP.	MAX.	UNIT
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	—	—	420 <sup>(1)</sup>	°C/W
Forward Voltage at $I_F = 10\text{ mA}$	$V_F$	—	—	0.9	Volts

**NOTES:**

(1) On FR-5 board using recommended solder pad layout.

# MMBZ4681 THRU MMBZ4717

## ELECTRICAL CHARACTERISTICS

(T<sub>A</sub> = 25°C unless otherwise noted)

Type	Marking Code	Zener Voltage <sup>(1)</sup> V <sub>Z</sub> @ I <sub>ZT</sub> = 50μA (Volts)			Max Reverse Current I <sub>R</sub> (μA)	Test Voltage V <sub>R</sub> (Volts)
		Norm <sup>(1)</sup>	Min	Max		
MMBZ4681	CF	2.4	2.28	2.52	2.0	1.0
MMBZ4682	CH	2.7	2.57	2.84	1.0	1.0
MMBZ4683	CJ	3.0	2.85	3.15	0.8	1.0
MMBZ4684	CK	3.3	3.14	3.47	7.5	1.5
MMBZ4685	CM	3.6	3.42	3.78	7.5	2.0
MMBZ4686	CN	3.9	3.71	4.10	5.0	2.0
MMBZ4687	CP	4.3	4.09	4.52	4.0	2.0
MMBZ4688	CT	4.7	4.47	4.94	10.0	3.0
MMBZ4689	CU	5.1	4.85	5.36	10.0	3.0
MMBZ4690	CV	5.6	5.32	5.88	10.0	4.0
MMBZ4691	CA	6.2	5.89	6.51	10.0	5.0
MMBZ4692	CX	6.8	6.46	7.14	10.0	5.1
MMBZ4693	CY	7.5	7.13	7.88	10.0	5.7
MMBZ4694	CZ	8.2	7.79	8.61	1.0	6.2
MMBZ4695	DC	8.7	8.27	9.14	1.0	6.6
MMBZ4696	DD	9.1	8.65	9.56	1.0	6.9
MMBZ4697	DE	10.0	9.50	10.5	1.0	7.6
MMBZ4698	DF	11.0	10.50	11.6	0.05	8.4
MMBZ4699	DH	12.0	11.40	12.6	0.05	9.1
MMBZ4700	DJ	13.0	12.40	13.7	0.05	9.8
MMBZ4701	DK	14.0	13.30	14.7	0.05	10.6
MMBZ4702	DM	15.0	14.30	15.8	0.05	11.4
MMBZ4703	DN	16.0	15.20	16.8	0.05	12.1
MMBZ4704	DP	17.0	16.20	17.9	0.05	12.9
MMBZ4705	DT	18.0	17.10	18.9	0.05	13.6
MMBZ4706	DU	19.0	18.10	20.0	0.05	14.4
MMBZ4707	DV	20.0	19.00	21.0	0.01	15.2
MMBZ4708	DA	22.0	20.90	23.1	0.01	16.7
MMBZ4709	DZ	24.0	22.80	25.2	0.01	18.2
MMBZ4710	DY	25.0	23.80	26.3	0.01	19.0
MMBZ4711	EA	27.0	25.70	28.4	0.01	20.4
MMBZ4712	EC	28.0	26.60	29.4	0.01	21.2
MMBZ4713	ED	30.0	28.50	31.5	0.01	22.8
MMBZ4714	EE	33.0	31.40	34.7	0.01	25.0
MMBZ4715	EF	36.0	34.20	37.8	0.01	27.3
MMBZ4716	EH	39.0	37.10	41.0	0.01	29.6
MMBZ4717	EJ	43.0	40.90	45.2	0.01	32.6

**NOTES:**

(1) Tested with pulse test current