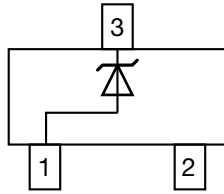
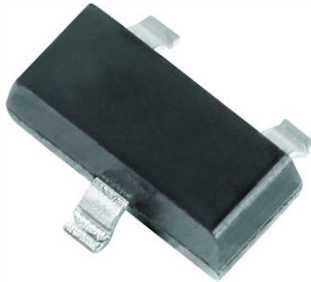




Small Signal Zener Diodes



FEATURES

- Silicon planar power Zener diodes
- Standard Zener voltage tolerance is $\pm 5\%$ with a "B" suffix (e.g.: MMBZ5225B), suffix "C" is $\pm 2\%$ tolerance.
- High temperature soldering guaranteed: 260 °C/4 x 10 s at terminals
- AEC-Q101 qualified available
- ESD capability according to AEC-Q101: Human body model > 8 kV Machine model > 800 V
- Base P/N-E3 - RoHS-compliant, commercial grade
- Base P/N-HE3 - RoHS-compliant, AEC-Q101 qualified
- Material categorization: for definitions of compliance please see www.vishay.com/doc?99912

AUTOMOTIVE GRADE Available



RoHS COMPLIANT

DESIGN SUPPORT TOOLS

[click logo to get started](#)

3D
Models Available

PRIMARY CHARACTERISTICS		
PARAMETER	VALUE	UNIT
V _Z range nom.	3 to 75	V
Test current I _{ZT}	1.7 to 20	mA
V _Z specification	Thermal equilibrium	
Circuit configuration	Single	

ORDERING INFORMATION			
DEVICE NAME	ORDERING CODE	TAPED UNITS PER REEL	MINIMUM ORDER QUANTITY
MMBZ5225 to MMBZ5267	MMBZ5225B-E3-08 to MMBZ5267B-E3-08	3000 (8 mm tape on 7" reel)	15 000/box
	MMBZ5225C-E3-08 to MMBZ5267C-E3-08		
	MMBZ5225B-HE3-08 to MMBZ5267B-HE3-08		
	MMBZ5225C-HE3-08 to MMBZ5267C-HE3-08		
	MMBZ5225B-E3-18 to MMBZ5267B-E3-18	10 000 (8 mm tape on 13" reel)	10 000/box
	MMBZ5225C-E3-18 to MMBZ5267C-E3-18		
	MMBZ5225B-HE3-18 to MMBZ5267B-HE3-18		
	MMBZ5225C-HE3-18 to MMBZ5267C-HE3-18		

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}	225	mW
	On alumina substrate	P _{tot}	300	mW
Zener current	See table "Electrical Characteristics"			
Thermal resistance, junction to ambient air	On FR - 5 board using recommended solder pad layout	R _{thJA}	556	K/W
Junction temperature		T _j	150	°C
Storage temperature range		T _{stg}	-65 to +150	°C
Operating temperature range		T _{op}	-55 to +150	°C



ELECTRICAL CHARACTERISTICS (T_amb = 25 °C, unless otherwise specified)

Table with 10 columns: PART NUMBER, MARKING CODE, ZENER VOLTAGE RANGE (1), TEST CURRENT (IZT1, IZT2), REVERSE LEAKAGE CURRENT (IR at VR), DYNAMIC RESISTANCE (2) (ZZ at IZT1, ZZK at IZT2), TEMPERATURE COEFFICIENT (alphaVZ). Rows list part numbers from MMBZ5225 to MMBZ5267 with their respective electrical parameters.

Notes

- Maximum VF = 0.9 V, at IF = 10 mA
(1) Measured at thermal equilibrium
(2) The Zener impedance is derived from the 1 kHz AC voltage which results when an AC current having an RMS value equal to 10 % of the Zener current (IZT1 or IZT2) is superimposed on IZT1 or IZT2. Zener Impedance is measured at two points to insure a sharp knee on the breakdown curve and to eliminate unstable units

TYPICAL CHARACTERISTICS ($T_{amb} = 25\text{ }^{\circ}\text{C}$, unless otherwise specified)

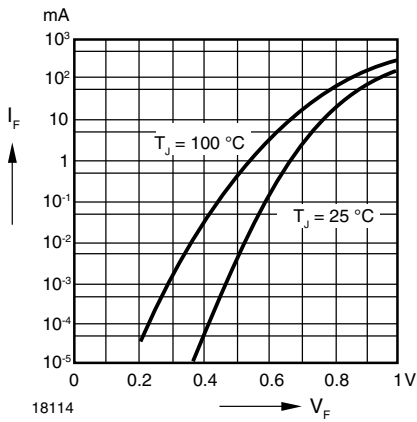


Fig. 1 - Forward Characteristics

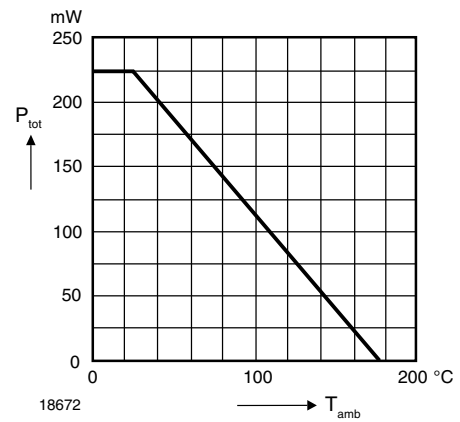
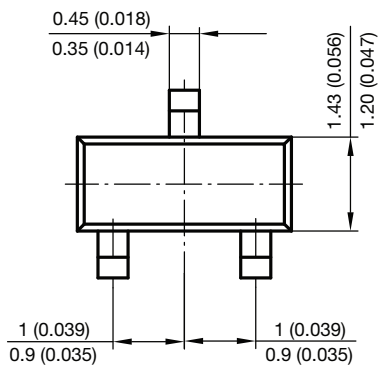
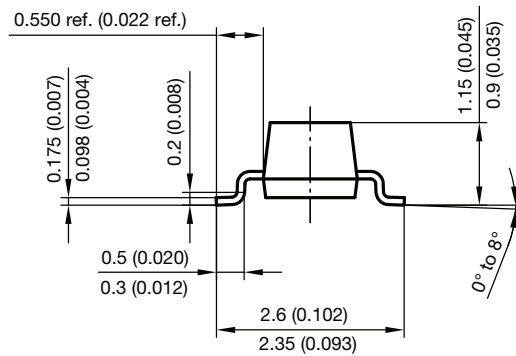
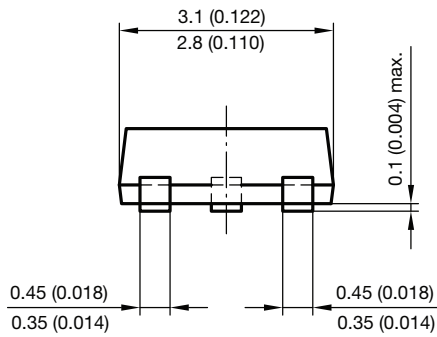
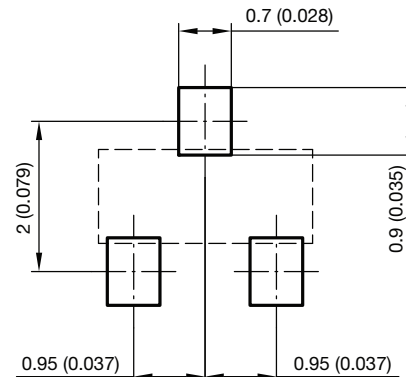


Fig. 2 - Admissible Power Dissipation vs. Ambient Temperature

PACKAGE DIMENSIONS in millimeters (inches): SOT-23



Foot print recommendation:





Disclaimer

ALL PRODUCT, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE WITHOUT NOTICE TO IMPROVE RELIABILITY, FUNCTION OR DESIGN OR OTHERWISE.

Vishay Intertechnology, Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "Vishay"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained in any datasheet or in any other disclosure relating to any product.

Vishay makes no warranty, representation or guarantee regarding the suitability of the products for any particular purpose or the continuing production of any product. To the maximum extent permitted by applicable law, Vishay disclaims (i) any and all liability arising out of the application or use of any product, (ii) any and all liability, including without limitation special, consequential or incidental damages, and (iii) any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.

Statements regarding the suitability of products for certain types of applications are based on Vishay's knowledge of typical requirements that are often placed on Vishay products in generic applications. Such statements are not binding statements about the suitability of products for a particular application. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. Parameters provided in datasheets and / or specifications may vary in different applications and performance may vary over time. All operating parameters, including typical parameters, must be validated for each customer application by the customer's technical experts. Product specifications do not expand or otherwise modify Vishay's terms and conditions of purchase, including but not limited to the warranty expressed therein.

Except as expressly indicated in writing, Vishay products are not designed for use in medical, life-saving, or life-sustaining applications or for any other application in which the failure of the Vishay product could result in personal injury or death. Customers using or selling Vishay products not expressly indicated for use in such applications do so at their own risk. Please contact authorized Vishay personnel to obtain written terms and conditions regarding products designed for such applications.

No license, express or implied, by estoppel or otherwise, to any intellectual property rights is granted by this document or by any conduct of Vishay. Product names and markings noted herein may be trademarks of their respective owners.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Vishay:

[MMBZ5243B-E3-08](#) [MMBZ5231B-HE3-08](#) [MMBZ5263B-HE3-18](#) [MMBZ5226B-HE3-08](#) [MMBZ5226B-E3-08](#)
[MMBZ5240B-HE3-08](#) [MMBZ5263B-E3-18](#) [MMBZ5231B-E3-08](#) [MMBZ5240B-E3-08](#) [MMBZ5235C-HE3-08](#)
[MMBZ5256C-E3-08](#) [MMBZ5253C-HE3-08](#) [MMBZ5248C-HE3-08](#) [MMBZ5233C-HE3-08](#) [MMBZ5267B-HE3-18](#)
[MMBZ5239C-HE3-18](#) [MMBZ5247B-HE3-18](#) [MMBZ5227C-E3-08](#) [MMBZ5264C-HE3-18](#) [MMBZ5226C-E3-18](#)
[MMBZ5245B-HE3-18](#) [MMBZ5234B-HE3-18](#) [MMBZ5248C-E3-18](#) [MMBZ5228C-HE3-08](#) [MMBZ5253C-E3-18](#)
[MMBZ5237C-HE3-18](#) [MMBZ5259C-HE3-08](#) [MMBZ5237B-E3-08](#) [MMBZ5262B-HE3-08](#) [MMBZ5247B-E3-08](#)
[MMBZ5229B-E3-18](#) [MMBZ5234B-E3-18](#) [MMBZ5261C-E3-08](#) [MMBZ5251B-E3-18](#) [MMBZ5246B-E3-18](#) [MMBZ5253B-](#)
[HE3-08](#) [MMBZ5244C-E3-08](#) [MMBZ5265C-E3-18](#) [MMBZ5256B-E3-18](#) [MMBZ5261B-E3-18](#) [MMBZ5249C-E3-08](#)
[MMBZ5232B-HE3-08](#) [MMBZ5259B-E3-08](#) [MMBZ5236C-E3-18](#) [MMBZ5249B-E3-18](#) [MMBZ5263C-E3-18](#)
[MMBZ5250B-HE3-08](#) [MMBZ5226B-HE3-18](#) [MMBZ5266B-HE3-08](#) [MMBZ5266B-E3-18](#) [MMBZ5225B-HE3-18](#)
[MMBZ5254B-HE3-18](#) [MMBZ5258B-HE3-08](#) [MMBZ5235B-E3-08](#) [MMBZ5231C-E3-08](#) [MMBZ5243B-E3-18](#)
[MMBZ5236C-HE3-08](#) [MMBZ5259B-HE3-08](#) [MMBZ5232C-HE3-18](#) [MMBZ5242B-HE3-08](#) [MMBZ5257B-E3-08](#)
[MMBZ5265B-HE3-18](#) [MMBZ5237C-HE3-08](#) [MMBZ5251B-E3-08](#) [MMBZ5256B-HE3-08](#) [MMBZ5239C-HE3-08](#)
[MMBZ5234B-HE3-08](#) [MMBZ5234B-E3-08](#) [MMBZ5258C-E3-08](#) [MMBZ5231B-E3-18](#) [MMBZ5241B-E3-18](#)
[MMBZ5256C-HE3-18](#) [MMBZ5251C-E3-08](#) [MMBZ5225C-HE3-18](#) [MMBZ5230C-HE3-08](#) [MMBZ5256B-E3-08](#)
[MMBZ5267C-E3-18](#) [MMBZ5257B-HE3-18](#) [MMBZ5236C-E3-08](#) [MMBZ5237B-HE3-08](#) [MMBZ5255C-E3-18](#)
[MMBZ5260B-E3-18](#) [MMBZ5266B-E3-08](#) [MMBZ5238C-E3-18](#) [MMBZ5252B-HE3-18](#) [MMBZ5232B-E3-08](#)
[MMBZ5256B-HE3-18](#) [MMBZ5236B-E3-18](#) [MMBZ5242C-HE3-18](#) [MMBZ5229B-HE3-08](#) [MMBZ5241B-HE3-08](#)
[MMBZ5255C-E3-08](#) [MMBZ5255B-HE3-18](#) [MMBZ5232C-HE3-08](#) [MMBZ5266C-HE3-08](#) [MMBZ5233C-E3-18](#)
[MMBZ5225C-E3-18](#) [MMBZ5228B-E3-18](#) [MMBZ5259B-HE3-18](#) [MMBZ5245B-E3-18](#)