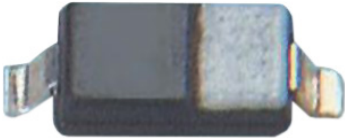


RoHS
Compliant



Features

- Planar die construction
- 200mW Power dissipation on ceramic PCB
- General purpose medium current
- Ideally suited for automated assembly processes
- Epoxy meets UL 94 V-0 flammability rating
- Moisture sensitivity Level 1
- Reverse voltage: 2.4V to 3.9V
- Power dissipation: 0.2 Watts

Max. Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%

Parameter	Symbol	Rating	Units
Power dissipation	P _D	200	mW
Maximum Forward Voltage (I _F = 10mA DC)	V _F	0.9	V
Thermal Resistance Junction to Ambient (Note1)	R _{thJA}	625	°C/W
Junction Temperature	T _J	-65 to +150	°C
Storage Temperature Range	T _{STG}	-65 to +150	°C

Note: 1. Device mounted on ceramic PCB: 7.6mm × 9.4mm × 0.87mm

Part Number	Zener Voltage V _Z (1) Volts			Max. Zener Impedance (2) ZZT (Ω)		Max. Zener Impedance (2) ZZK (Ω)		Reverse Current I _R (Max) @ V _R		Typical Temperature Coefficient @ IZTC		Marking
	Min.	Nom	Max.	IZT(mA)	Max.	IZK(mA)	Max.	μA	V	mV/°C		
BZT52C10S	9.4	10	10.6	5	20	1	150	0.2	7	4.5	8	WF
BZT52C12S	11.4	12	12.7	5	25	1	150	0.1	8	6	10	WH
BZT52C24S	22.8	24	25.6	5	70	1	250	0.1	16.8	18.4	22	WO
BZT52C3V9S	3.7	3.9	4.1	5	90	1	600	3	1	-3.5	0	W5
BZT52C7V5	7	7.5	7.9	5	15	1	80	1	5	2.5	5.3	NC

(1) Device mounted on ceramic PCB: 7.6mm × 9.4mm × 0.87mm with pad areas 25mm²

(2) f = 1KHz

Rating and Characteristic Curves

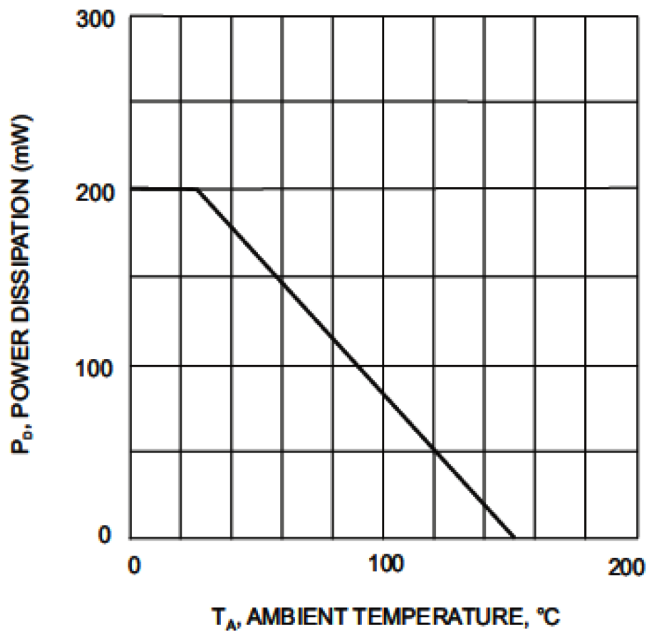


Fig. 1. Power Derating Curve

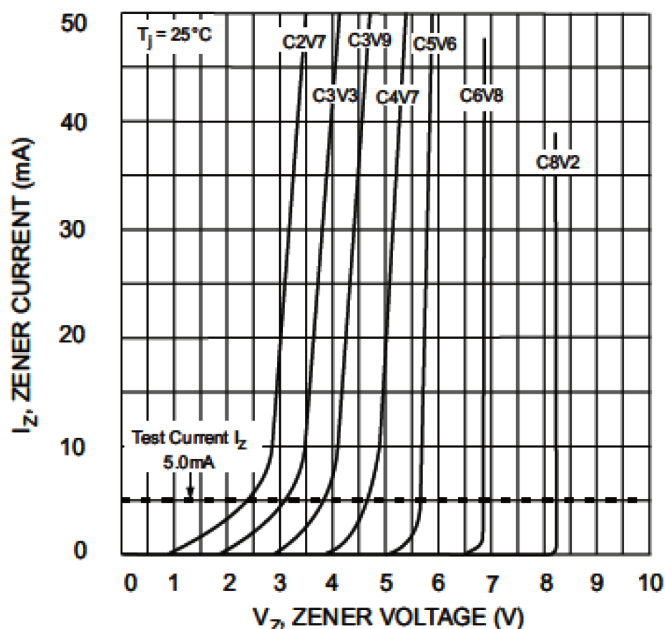


Fig. 2. Zener Breakdown Characteristics

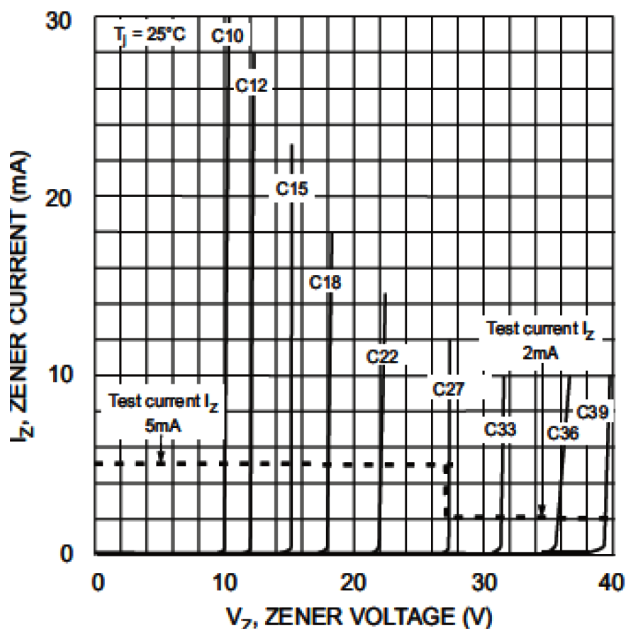


Fig. 3. Zener Breakdown Characteristics

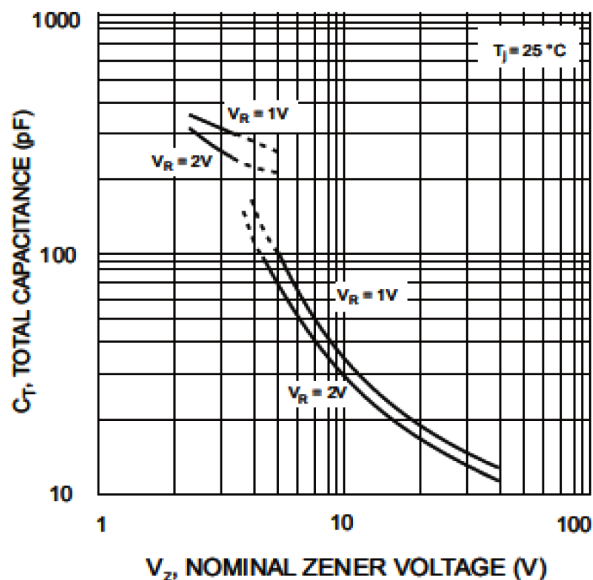
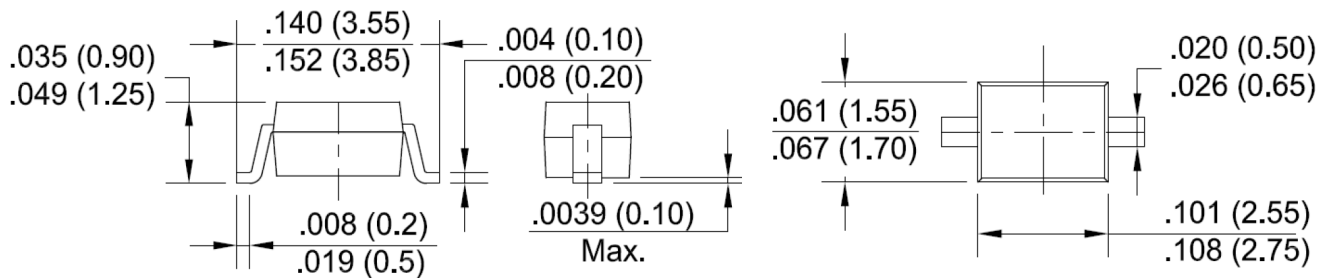


Fig. 4. Total Capacitance vs. Nominal Zener Voltage

Dimension:

SOD-123



Part Number Table

Description	Part Number
Zener Diode, SOD-123	BZT52C10S
	BZT52C12S
	BZT52C24S
	BZT52C3V9S
	BZT52C7V5

Dimensions : Inches (Millimetres)

Important Notice : This data sheet and its contents (the "Information") belong to the members of the AVNET group of companies (the "Group") or are licensed to it. No licence is granted for the use of it other than for information purposes in connection with the products to which it relates. No licence of any intellectual property rights is granted. The Information is subject to change without notice and replaces all data sheets previously supplied. The Information supplied is believed to be accurate but the Group assumes no responsibility for its accuracy or completeness, any error in or omission from it or for any use made of it. Users of this data sheet should check for themselves the Information and the suitability of the products for their purpose and not make any assumptions based on information included or omitted. Liability for loss or damage resulting from any reliance on the Information or use of it (including liability resulting from negligence or where the Group was aware of the possibility of such loss or damage arising) is excluded. This will not operate to limit or restrict the Group's liability for death or personal injury resulting from its negligence. Multicomp Pro is the registered trademark of Premier Farnell Limited 2019.

Newark.com/multicomp-pro
 Farnell.com/multicomp-pro
 Element14.com/multicomp-pro