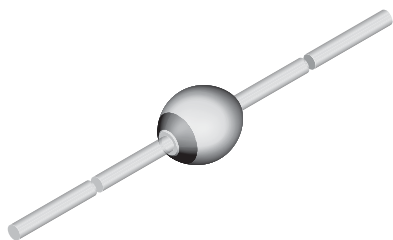


Zener Diodes with Surge Current Specification



949539

ADDITIONAL RESOURCES


[3D Models](#)

FEATURES

- Glass passivated junction
- Hermetically sealed package
- Clamping time in picoseconds
- Material categorization:
for definitions of compliance please see
www.vishay.com/doc?99912


RoHS
 COMPLIANT
 HALOGEN
FREE

APPLICATIONS

- Medium power voltage regulators and medium power transient suppression circuits

PRIMARY CHARACTERISTICS

PARAMETER	VALUE	UNIT
V _Z range nom.	6.2 to 300	V
Test current I _{ZT}	2 to 100	mA
V _Z specification	Pulse current	
Circuit configuration	Single	

ORDERING INFORMATION (Example)

DEVICE NAME	ORDERING CODE	TAPED UNITS	MINIMUM ORDER QUANTITY
BZT03C6V2	BZT03C6V2-TR	5000 per 10" tape and reel	25 000
BZT03C6V2	BZT03C6V2-TAP	5000 per ammpack	25 000

PACKAGE

PACKAGE NAME	WEIGHT	MOLDING COMPOUND FLAMMABILITY RATING	MOISTURE SENSITIVITY LEVEL	SOLDERING CONDITIONS
SOD-57	369 mg	UL 94 V-0	MSL level 1 (according J-STD-020)	Peak temperature max. 260 °C

ABSOLUTE MAXIMUM RATINGS (T_{amb} = 25 °C, unless otherwise specified)

PARAMETER	TEST CONDITION	SYMBOL	VALUE	UNIT
Power dissipation	I = 10 mm, T _L = 25 °C	P _{tot}	3250	mW
	T _{amb} = 25 °C	P _{tot}	1300	
Repetitive peak reverse power dissipation		P _{ZRM}	10	W
Non repetitive peak surge power dissipation	t _p = 100 μs, T _j = 25 °C	P _{ZSM}	600	W
Junction to ambient air	I = 10 mm, T _L = constant	R _{thJA}	46	K/W
	On PC board with spacing 25 mm	R _{thJA}	100	
Junction temperature		T _j	175	°C
Storage temperature range		T _s	-65 to +175	°C
Forward voltage (max.)	I _F = 0.5 A	V _F	1.2	V

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

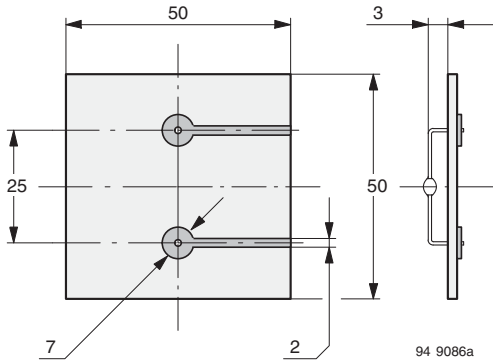


Fig. 1 - Epoxy Glass Hard Tissue, Board Thickness 1.5 mm, $R_{thJA} \leq 100\text{ K/W}$

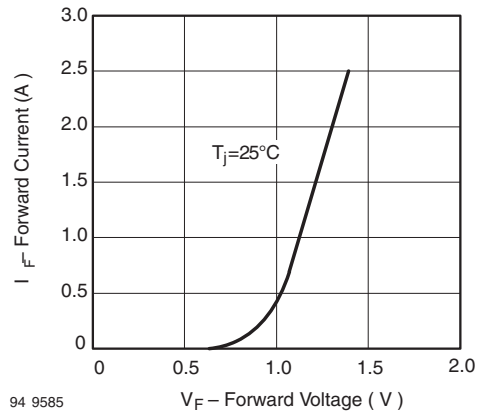


Fig. 3 - Forward Current vs. Forward Voltage

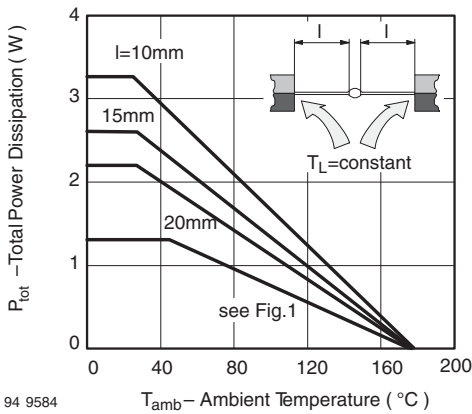


Fig. 2 - Total Power Dissipation vs. Ambient Temperature

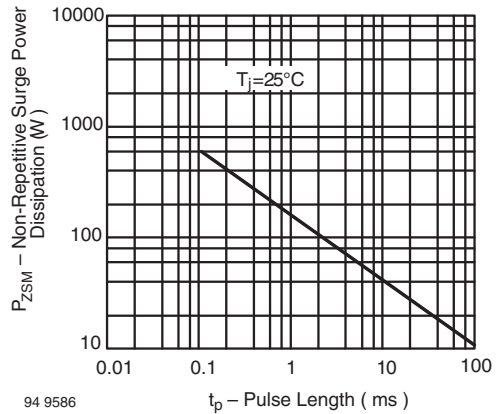
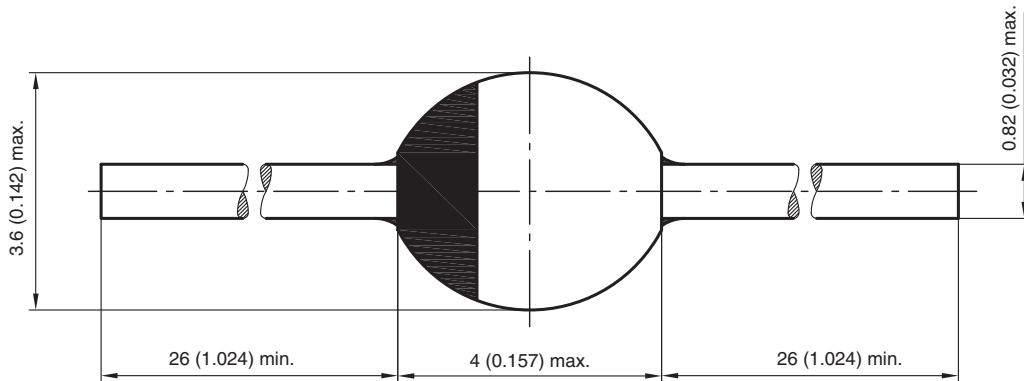


Fig. 4 - Non Repetitive Surge Power Dissipation vs. Pulse Length

PACKAGE DIMENSIONS in millimeters (inches): **SOD-57**



20543
Rev. 3 - Date: 09.February 2005
Document no.:6.563-5006.3-4



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