

# VGAH181231P650DP

(1812, 31Vdc, 3.7J, 800A, 2600pF, Sn Term)

Multilayer Chip Varistor Datasheet

## BASIC SPECIFICATION

Case Size [EIA]	1812
Operating Temperature	-55 to +150°C
Grade	Automotive & General
Qualification	AEC-Q200
Termination	Sn
RoHS	Yes
MSL Level	1
Packaging	T&R 7in (180mm)
Packaging Qty	1000 pcs



AEC-Q200  
Qualified



RoHS  
Compliant

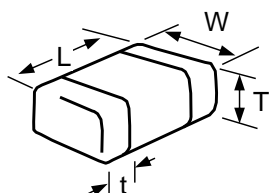


Click for  
Online Data

## ELECTRICAL CHARACTERISTICS

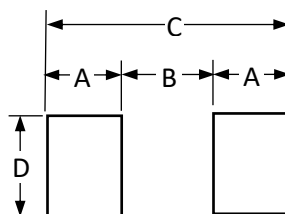
DC Working Voltage	31 Vdc
AC Working Voltage	25 Vac
Breakdown Voltage [1mA DC]	39±10% V
Clamping Voltage [8x20µs]	65V @ 5A
Max Leakage Current [Vdc, 25°C]	15 µA
Transient Energy [10x1000µs]	3.7 J
Load Dump Energy [x10]	8 J
Peak Power [10x1000µs]	2800 W
Peak Current Rating [8x20µs]	800 A
Typical Capacitance [1kHz, 0.5Vrms, 25°C]	2600 pF
Capacitance Tolerance	+100/-50%
Jump Start Voltage [5min]	30 V
Power Dissipation	0.06 W

## DIMENSIONS



	mm	inches
L	4.50±0.30	0.177±0.012
W	3.20±0.30	0.126±0.012
T	2 max	0.080 max
t	1.00 max	0.039 max

## SOLDERING PAD



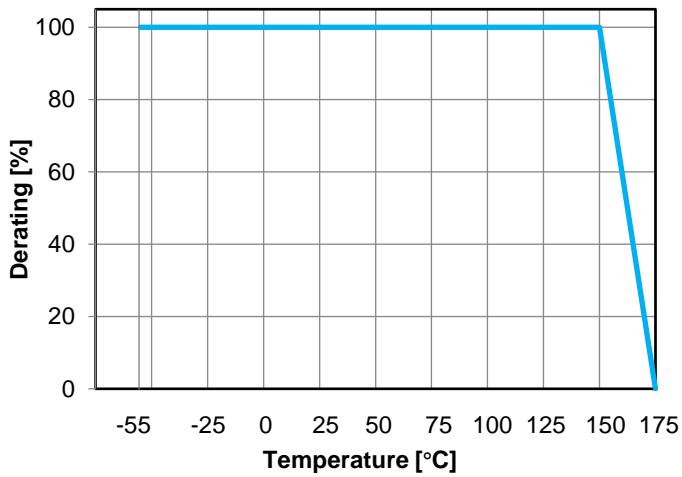
	mm	inches
A	1.70	0.067
B	3	0.118
C	6.4	0.252
D	3.5	0.138

## HOW TO ORDER

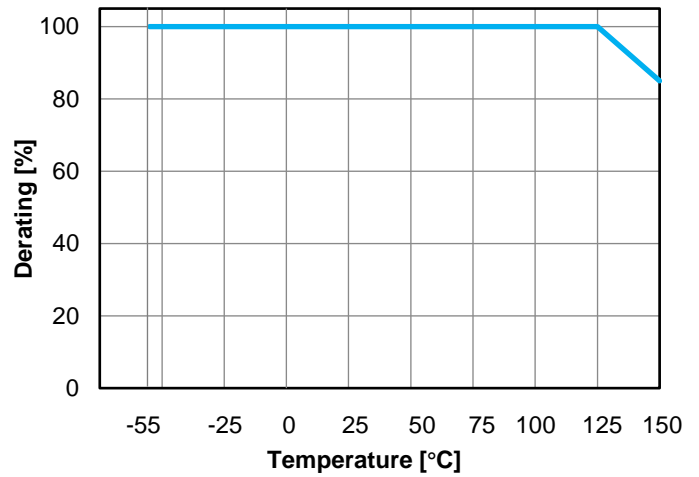
<b>VGAH</b>	<b>1812</b>	<b>31</b>	<b>P</b>	<b>650</b>	<b>D</b>	<b>P</b>
Varistor Glass Encapsulated 150°C	Case Size	Working Voltage	Energy Rating	Clamping Voltage	Packaging	Termination
		31 = 31 Vdc	P = 3.7J	650 = 65V	D = 7" reel (1,000pcs) T = 13" reel (4,000pcs)	P = Sn

## TYPICAL CHARACTERISTICS

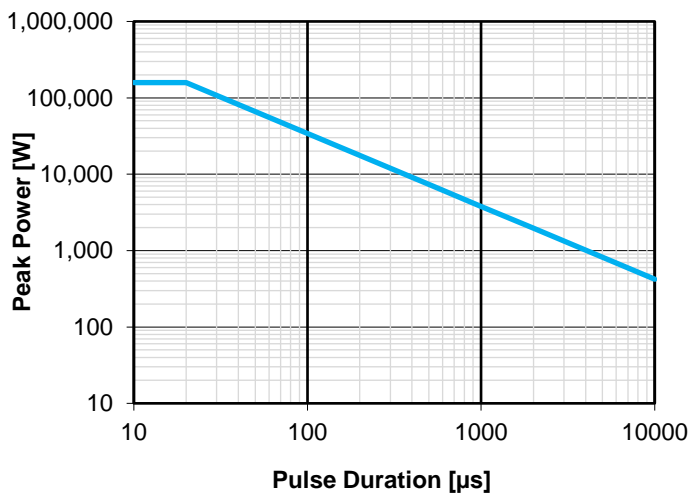
Temperature Derating (Energy, Current, Power)



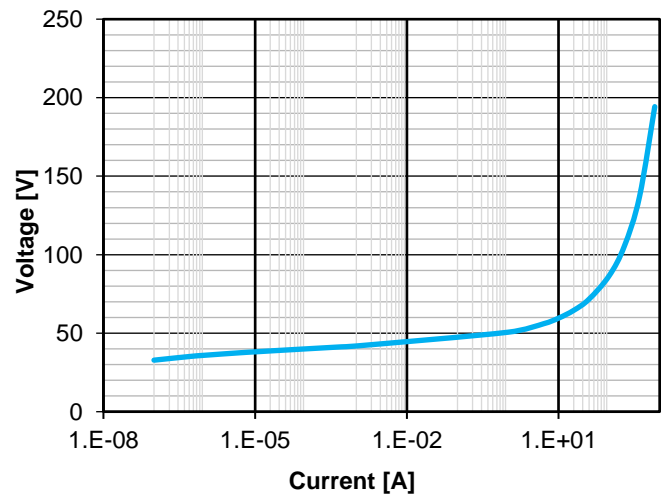
Temperature Derating (Working Voltage)



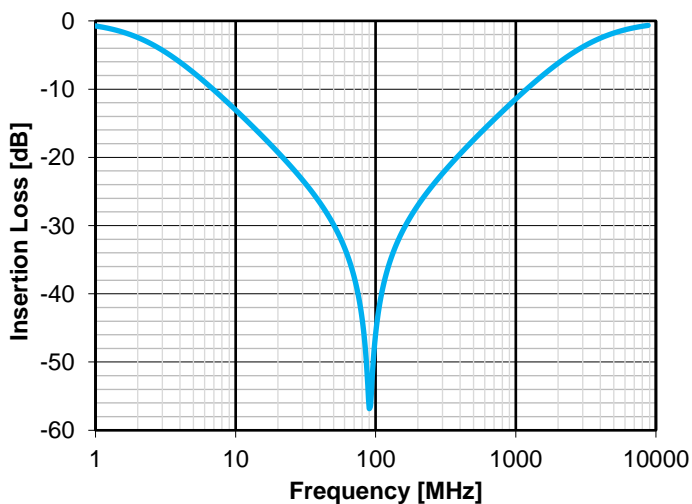
Power Derating



Voltage / Current



S21



NOTICE: Specifications are subject to change without notice. All statements, information and data given herein are believed to be accurate and reliable, but are presented without guarantee or responsibility of any kind, expressed or implied. Specifications are typical and may not apply to all applications.