

# Radial Leaded High Temperature Automotive



## 150°C Rated Radial Leaded TransGuard

### GENERAL DESCRIPTION

AVX High Temperature Multi-Layer Varistors are designed for underhood applications. Products have been tested, qualified, and specified to 150°C. The Radial Leaded TransGuard is built for durability in harsh environments. The MLV advantage is EMI/RFI attenuation in the off state. This allows designers to combine the circuit protection and EMI/RFI attenuation function into a single highly reliable device.



### FEATURES

- Rated at 150°C
- AEC Q200 qualified
- ESD rated to 25kV (HBM ESD Level 6)
- EMI/RFI attenuation in off state
- Excellent current and energy handling

### APPLICATIONS

- Under hood
- Down Hole Drilling
- Any high temperature application

### HOW TO ORDER

<u>VR15</u>	<u>AT</u>	<u>18</u>	<u>A</u>	<u>650</u>	<u>R</u>	<u>TR2</u>
AVX Style	Series AT = 150°C Automotive	Voltage 18=18V	Energy A=0.1J	Clamping Voltage 650=67V	Leads R=RoHS Complaint	Package TR2=T&R Standard 2

### PERFORMANCE CHARACTERISTICS

AVX Part No.	V <sub>W</sub> (DC)	V <sub>W</sub> (AC)	V <sub>B</sub>	V <sub>C</sub>	E <sub>T</sub>	I <sub>P</sub>	I <sub>L</sub>	Jump Start	Cap
VR15AT18A650R	18	13	41 ± 10%	67	0.1	30	10	29	90

**V<sub>W</sub>(DC)** DC Working Voltage [V]  
**V<sub>W</sub>(AC)** AC Working Voltage [V]  
**V<sub>B</sub>** Breakdown Voltage [V @ 1mA<sub>DC</sub>]  
**V<sub>C</sub>** Clamping Voltage [V @ I<sub>VC</sub>]

**I<sub>L</sub>** Maximum leakage current at the working voltage [μA]  
**E<sub>T</sub>** Transient Energy Rating [J, 10x1000μS]  
**I<sub>P</sub>** Peak Current Rating [A, 8x20μS]  
**Cap** Capacitance [pF] @ 1KHz specified and 0.5V<sub>RMS</sub>  
**Jump Start** Max V

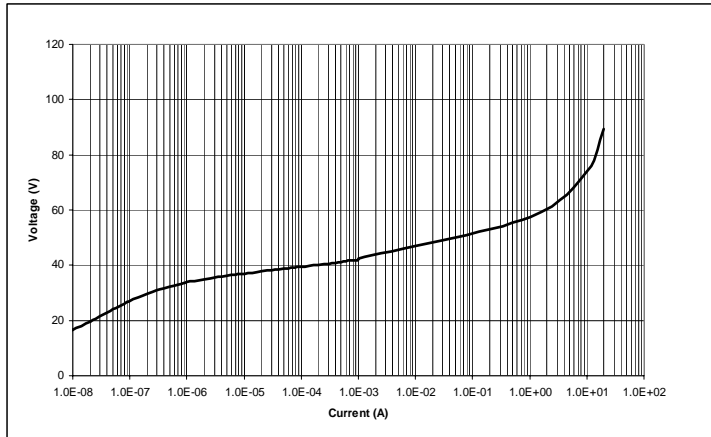
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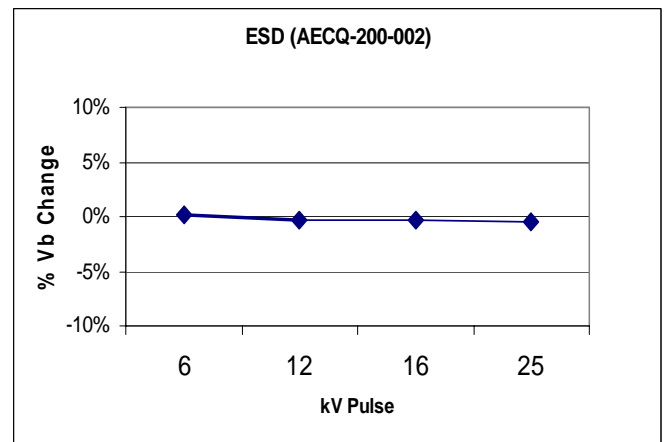
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### TYPICAL PERFORMANCE CURVES

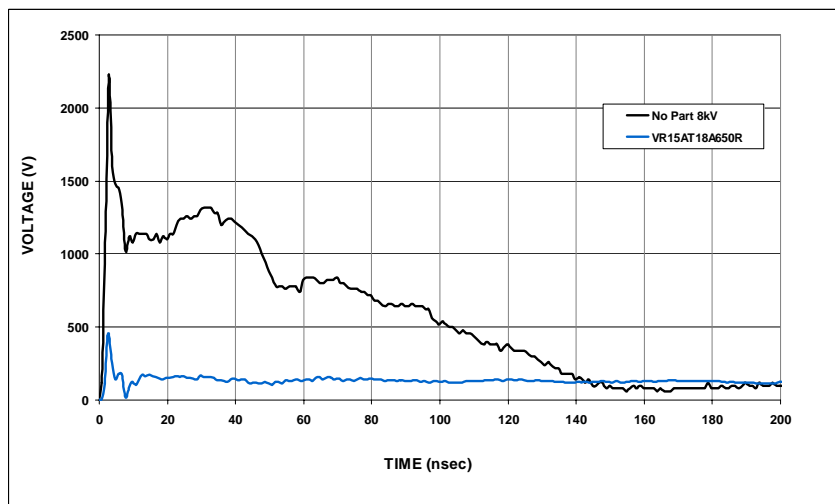
#### VOLTAGE/CURRENT CHARACTERISTICS



#### AEC-Q200-002 ESD CHARACTERISTICS



#### ESD WAVE ABSORPTION CHARACTERISTICS



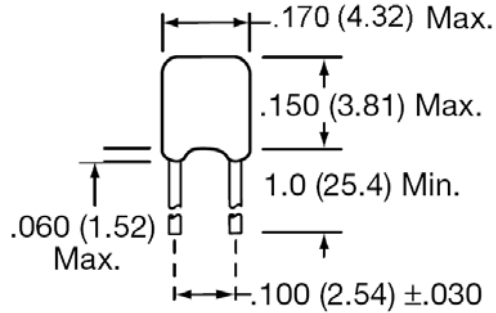
8 kV ESD Vc  
(150pF/330ohm IEC Network)

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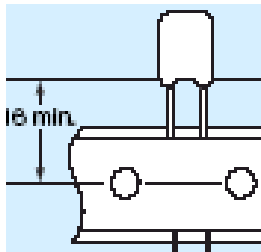
### PHYSICAL DIMENSIONS



Size	VR15
Width	4.32 mm Max (0.17 inch)
Height	3.81 mm (0.15 inch)
Thickness	2.54 mm (0.10 inch)
Lead Spacing	2.54 mm (0.10 inch)
Lead Diameter	0.508 mm (0.02 inch)

### TAPE & REEL PACKAGING OPTIONS

**TR1** – Tape & Reel Standard 1



**TR2** – Tape & Reel Standard 2

