



## Vitreous Enamelled, Axial

## Series PVAB

### Key Features

- 3W to 12W Power Rating.
- All Welded Construction.
- Non-Flammable Brown Enamel Coating.
- High Overload and Pulse Handling Capability.
- Suitable for High Speed Lead Forming Machines.
- Reference Standards.
  - JSS 50402 [RFHT-1 STYLES 2.5 to 12]
  - MIL-R-26 [Char V] • IEC 115 - 1
  - CECC 40201-001



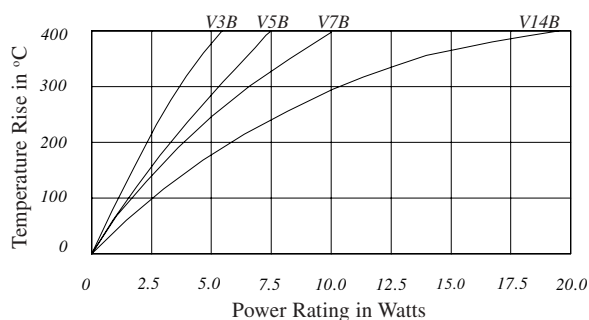
### Electrical Specifications and Environmental Characteristics

Type	Power		Voltage Max	Ohmic Range Ω		Ref. Standards <sup>1</sup>			Additional Specifications	
	@25°C	@70°C		MIL-R-26	CECC	JSS	TCR	Std. < +150 ppm/°C, Typ. < +75 ppm/°C		
	Watts	Watts	Min						Max	40201-001
V3B	3	2.6	100	0R1	10K	RW69	RB59	2.5	Derating	From 25°C to 350°C, Mil Char 'V'
V5B	5	4.3	160	0R1	20K		RB61	-	Climatic Cat.	55 / 200 / 56
V7B	7	6	200	0R1	22K	RW74	RB57	6	Ambient	-55°C to 200°C
V10B	10	9	720	0R1	68K	RW68	RB58		Load Life	ΔR < 5%
V14B	12	10	750	0R1	100K		-	12	Solderability	95% Coverage - MIL Std. 202F, Test 208

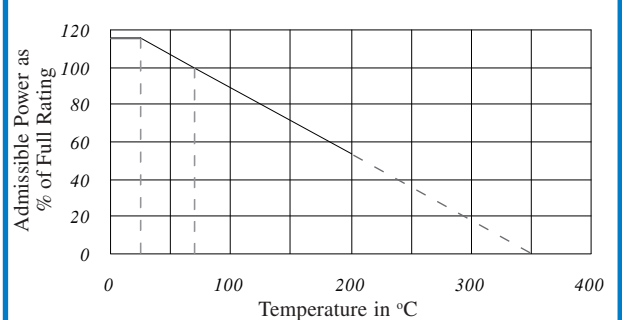
### Performance Characteristics

Test Methods	Test Conditions	Test Limits
Short Term Overload	10 × Rated Power for 5 seconds	ΔR < 1% + 0R05
Endurance at Room Temperature	Rated Power @25°C (1.5 hrs ON, 0.5 hrs OFF)	ΔR < 5% + 0R05
Thermal Shock (Rapid Change of Temp.)	5 Cycles, -55°C to 200°C	ΔR < 1% + 0R05
Robustness of Terminations	As per Clause C1-4.14 of BS-CECC 40201-002	ΔR < 1% + 0R05
Resistance to Soldering Heat	10 Seconds dip in Solder Bath at 260°C	ΔR < 1% + 0R05
Vibration	Freq: 10-500Hz, Amplitude: 0.75mm/10g, Accln.: 6hrs in each Axis	ΔR < 1% + 0R05
Bump Test	4000 Bumps at 40g Acceleration (Accln.)	ΔR < 1% + 0R05
Long Term Damp Heat	90% - 95% RH @40°C Ambient Temperature for 56 days	ΔR < 5% + 0R05
Climatic Sequence	As per Clause C1 - 4.20.8 of BS-CECC 40201-002	ΔR < 5% + 0R05
Temperature Rise	Max. Surface Temp. Rise @Rated Power and @25°C ambient	T < 350°C

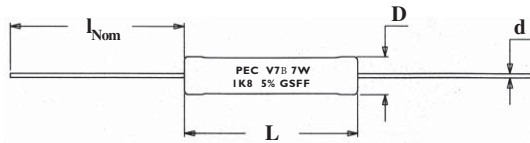
### Temperature Rise Graphs



### Derating Curve<sup>2</sup>

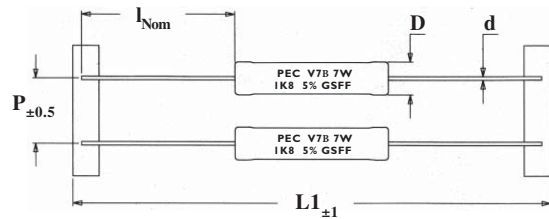


## Dimensions



- Resistance values are as measured between points at a distance of 10mm from the ends of the Resistor's body.
- The min. bend radius recommended for the lead at either end is 1mm. It is preferable to bend it at a distance of 2mm or more from the end of the body.

## Tape and Reel Specifications



Do not Scale Drawings.  
All dimensional tolerances in mm.

## Dimensions (mm)

Type	L	D	I***	d	P	L1
	Max	Max	Nom	+0.05 mm -0.05 mm		
V3B	12.7	5.6	38.1	0.813	10.0	88.0
V5B	23.8	7.0	38.1	0.813	10.0	98.0
V7B	23.8	8.7	38.1	0.813	10.0	97.0
V10B	46.8	10.0	38.1	0.813	NA	NA
V14B	53.5	8.0	38.1	0.813	NA	NA

## Dimensions (Inches)

Type	L	D	I****	d	P	L1
	Max	Max	Nom	+0.002" -0.002"		
V3B	0.500	0.220	1.50	0.032	0.394	2.56
V5B	0.937	0.276	1.50	0.032	0.394	2.95
V7B	0.937	0.343	1.50	0.032	0.394	2.91
V10B	1.844	0.394	1.50	0.032	NA	NA
V14B	2.106	0.315	1.50	0.032	NA	NA

## To Order - Please Specify

PEC Type.	Ohmic Value	Tolerance	Packing Style *	Release Condition	Standard / Non-Std. Leads
V3B	0.1 Ohm » 0R1 / R10 1 Ohm » 1R0 1 KOhm » 1K0 10.7 KOhm » 10K7	1% » F 2% » G 5% » J 10% » K	Bulk » B Tape&Reel » T Ammo » A Rondo » R	Commercial » X CECC » F JSS » J BS-CECC » B	Standard » S Others » M

A Sample Part No: **V3B 1K0 JTXX**

\* V3B,V5B,V7B can be supplied in Style B/T/A & V10B,V14B can be supplied in Style R only

## Notes

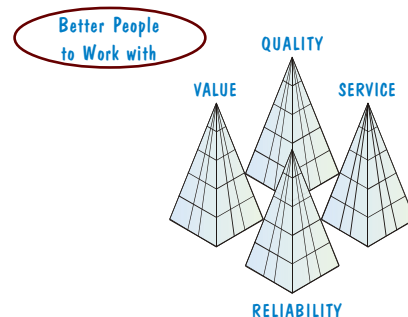
- On request we undertake tests for Batch Acceptance to a specified Reference Standard.
- The Derating Curve specifies the maximum allowable Power at a particular ambient temperature while ensuring that the maximum surface temperature remains within the designed limit.
- When the Resistor is subjected to a Pulse Load, please ensure that the *average* Power dissipated remains below the rated Power specified.
- Resistor performance with Pulse Loads will have to be application tested. Please utilise our Pulse Application Questionnaire for selecting a suitable type or for requesting any design-in assistance from us.

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**At PEC we offer well-tuned customised support.**