

WIRE WOUND RESISTORS CERAMIC ENCASED TYPE

HSV SERIES VERTICAL MOUNTING Ceramic Type

- 4 W to 17 W
- R04 to 82K
- Choice of 3 mounting configurations
- Vertical mounting pillar supports available
- Non inductive Aryton - Perry style available upto 1K0

As per AEC-Q200

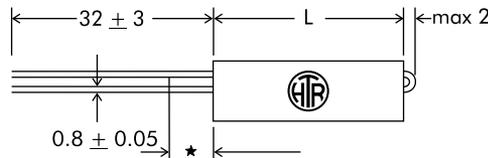




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PHYSICAL CONFIGURATION

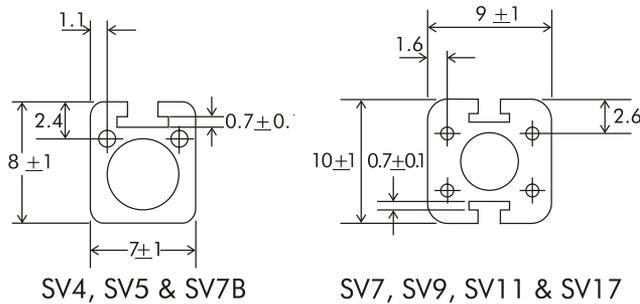


★ 6mm, reduced solderability in this area.

HTR TYPE	POWER RATING at 70°C	DIMENSIONS (mm) L(±1.5)	RESISTANCE RANGE		TYPICAL WEIGHT PER PC (gms)
			min	max	
SV4	4W	20.0	R04	11K	2.94
SV5	5W	25.0	R05	16K	3.3
SV7B	7W	38.0	R10	33K	4.9
SV7	7W	25.0	R05	16K	5.0
SV8	8W				
SV9	9W	38.0	R10	33K	7.9
SV10	10W				
SV11	11W	50.0	R10	47K	10.35
SV17	17W	75.0	R10	82K	14.0

For resistance values <R10 and tolerance <2%, please measure resistance 10mm ± 1mm from the bottom of ceramic case.

PROFILE DIMENSIONS



MOUNTING SPECIFICATIONS

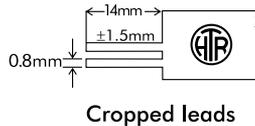
These resistors are available in a choice of 3 mounting configurations.

1. With straight leads (32mm ±3mm)
2. With cropped leads (14mm ±1.5mm)
3. With HSV mounting pillar.

CROPPING / MOUNTING PILLAR DIMENSIONS

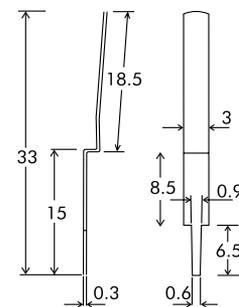
Resistors with cropped leads can be identified by the suffix 'C' e.g. 7 watt resistor with cropped leads is HTR type, SV-7C'. Resistors to be fitted with vertical mounting pillar can be identified by the suffix 'M' e.g. 5 watt resistor with mounting pillar is HTR type 'SV-5M'.

In the case of SV7, SV8, SV9,SV10, SV11 & SV17, there is a possibility of fitting 2 vertical mounting pillars. These can be identified by the suffix 'MM' e.g. SV17 with 2 vertical mounting pillars is HTR type SV17MM.



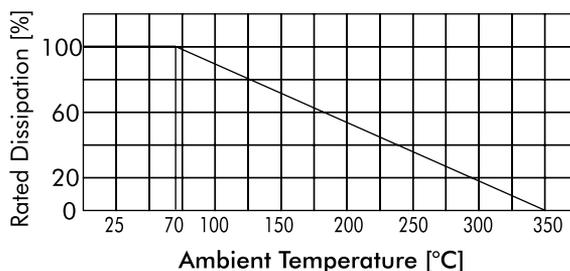
Cropped leads

Vertical Mounting Pillar Dimensions



All dimensions in mm

DERATING CURVE





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ELECTRICAL AND ENVIRONMENTAL CHARACTERISTICS /DATA

PARAMETER/PERFORMANCE TEST&TEST METHOD	PERFORMANCE REQUIREMENTS
Power Rating (Rated Ambient Temperature)	Full Power dissipation at 70°C and linearly derated to zero at 350°C (Refer Derating Curve above)
Resistance Tolerances Available	±10% (K); ±5% (J); ±3%(H); ±2%(G); ±1%(F)
Temperature Range	-55°C to +350°C with suitable derating as per derating curve.
Voltage Rating / Limiting Voltage / Max working Voltage	$V = \sqrt{P \times R}$
Maximum Overload Voltage	Varies depending on resistance value, duration of overload and type of pulse waveform (Contact factory for details)
Dielectric Withstanding Voltage / Voltage Proof (based on limiting voltage x 2 for 60secs)	$\Delta R \pm (1\% + R05)$ - No flashover, mechanical damage, arcing or insulation breakdown.
Short Time Overload (5 x Rated power for 5 secs)	$\Delta R \pm (2\% + R05)$
Temperature Co-efficient of Resistance	±120 ppm / °C for <R10 (average) ±80 ppm / °C for <1R0 (average) ±60 ppm / °C for <100R (average) ±90 ppm / °C or ±30 ppm / °C for >100R (depending on wire selected)
Insulation Resistance	>1000MΩ (Min)
Temperature Cycling (Room temperature → -55°C → Room temperature → 200°C → Room temperature for 5 cycles)	$\Delta R \pm [2\% + R05]$
Damp Heat (Steady State) (40°C at 93% R.H for 1000 hours - no load applied)	$\Delta R \pm [2\% + R05]$ Average
Endurance - Load Life (70°C with limiting voltage - 1.5 hours on / 0.5 hours off for 1000 hours)	$\Delta R \pm [\leq 3\% + R05]$ Average

MECHANICAL SPECIFICATIONS

PARAMETER / PERFORMANCE TEST & TEST METHOD	PERFORMANCE REQUIREMENTS
Terminal Tensile Strength	50 Newtons.
Resistance to Soldering Heat (260°C - 270°C for 10 secs)	$\Delta R \pm [0.2\% + R05]$ - Typical
Solderability (As per IEC pub. 60068 - 2 - 20 Ta)	Must meet the requirements laid down
Marking	As per IEC Pub. 60062

TYPICAL APPLICATIONS

The HSV series enjoys a wide market in TV and power supply field especially where space is at a premium on the PCB. Depending upon the resistance value and application the resistor core may be fiberglass or ceramic. These resistors are also available for use in Pulse applications. For further information please refer to "Pulse / Surge capability of resistors". In case a tailor-made pulse resistor is required, please refer to "Questionnaire of data required" and provide data accordingly.

Note : The ceramic cases used may be steatite ceramic, cordierite ceramic or high alumina ceramic. Thus, the ceramic cases may be off-white or variations of brown / grey, colours which are inherent to these ceramic material.

ORDERING INFORMATION

Series	HTR type	Packing	Resistance Value	Tolerance
HSV	SV5 / SV5*	Bulk SV5 / SV5*	100R	J

- For Pulse type - SV-5M I
- For RoHS version - SV-5M *
- For Non inductive type - N SV-5M
- For Cropped leads - SV-5M C
- For resistors fitted with single vertical mounting pillar - SV-5 M
 - For resistors fitted with two vertical mounting pillar - SV-9 MM
- In case the device will be subjected to aggressive solvents, please inform factory so case filling can be changed to solvent resistant type.