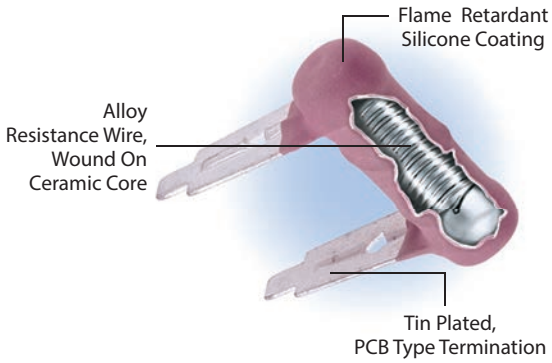


WIRE WOUND RESISTORS
SILICONE COATED TYPE

HIP
SERIES
POWER TYPE
Silicone / Cement Coated Wire Wound Resistors Industrial Applications

- PCB type termination which can be easily inserted and wave soldered on to the PCB.
- Especially designed for use in B/W and colour monitors.
- 3W to 10W
- R01 to 90K

AEC-Q200 Qualified

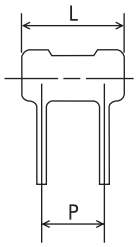
Pb-free * RoHS COMPLIANT

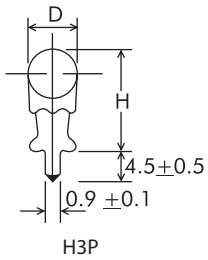
e : info@htr-india.com

WIRE WOUND
RESISTORS
SILICONE
COATED TYPE

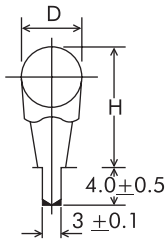
HIP

PHYSICAL CONFIGURATION





H3P

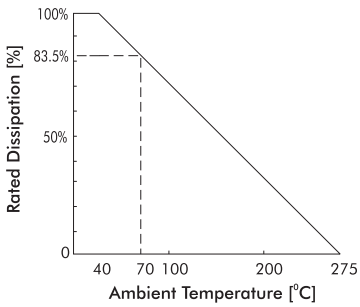


H5P, H7P & H10P

HTR TYPE	POWER RATING at 40°C (Ambient)	DIMENSIONS (mm)				RESISTANCE RANGE		TYPICAL WEIGHT PER PC (gms)
		L ±1.5	* D (max)	P ±1.0	H ±1	min	max	
H3P	3W	20.0	6.5	12.5	18.5	R01	6K8	2.6
H5P	5W	25.0	9.0	15.0	22.5	R01	39K	3.7
H7P	7W	40.0	9.0	29.5	22.5	R01	68K	5.6
H10P	10W	54.0	9.0	43.0	22.5	R01	90K	6.8

* For resistance values < 1R0 + 0.8mm allowed.

DERATING CURVE



ELECTRICAL AND ENVIRONMENTAL CHARACTERISTICS / DATA

PARAMETER/ PERFORMANCE TEST	TEST METHOD - DETAILS	PERFORMANCE REQUIREMENTS
Power Rating (Rated Ambient Temperature)		Full Power dissipation at 40°C and linearly derated to zero at +275°C (Refer Derating Curve above)
Resistance Tolerances Available	JIS - C – 5202 para 5.1	±10% (K); ±5% (J); ±3% (H); ±2%(G); ±1% (F)
Operating Temperature Range		-55°C to +275°C with suitable derating as per derating curve shown above
Voltage Rating / Limiting Voltage / Max.Working Voltage	$V=\sqrt{PxR}$	
Maximum Overload Voltage		Varies depending on resistance value, duration of overload and type of pulse waveform. (Contact factory for details)
Rated Load	JIS - C – 5202 para 5.4	ΔR ± [1% + R05]
Dielectric Withstanding Voltage / Voltage Proof	JIS - C – 5202 para 5.7 (based on limiting voltage x 2 or 500V whichever is applicable)	ΔR ± [1% + R05]
Short Time Overload	JIS - C – 5202 para 5.5 (Upto 3W - condition A – R.V x 2.5 for 5 secs) (5W and above – condition B - Voltage corresponding to10 times power for 5 secs)	ΔR ± [2% + R05]
Insulation Resistance	JIS - C – 5202 para 5.6 (Condition F)	>1000MΩ (Dry)
Temperature Co-efficient of Resistance	JIS - C – 5202 para 5.2	± 90 ppm / °C [>10R] ± 80 ppm / °C [<10R] ± 200 ppm / °C [<R10]

PARAMETER/ PERFORMANCE TEST	TEST METHOD - DETAILS	PERFORMANCE REQUIREMENTS
Endurance – under load with humidity	JIS - C – 5202 para 7.9 1000 hours at 40°C ± 2°C, 95% R.H with limiting voltage - 1.5 hours on / 0.5 hours off	ΔR ± [5%+R05]
Damp Heat (Steady State)	JIS - C – 5202 para 7.5	ΔR ± [3% + R05]
Temperature Cycling	JIS - C – 5202 para 7.4 [Room temperature ⟶ -55°C ⟶ Room temperature ⟶+155°C ⟶ Room temperature for 5 cycles]	ΔR ± [1% + R05] - Typical
Load Life	JIS - C – 5202 para 7.10 1000 hours at 70°C limiting voltage - 1.5 hours on / 0.5 hours off	ΔR ± [5% + R05] - Average
Solvent Resistance	JIS - C – 5202 para 6.9 Solvent A – IPA for 60secs ± 10 secs.	No effect on coating or marking
Flame Retardant (Under Overload Condition)	JIS - C - 5202 para 7.12.3.2	No flaming / arcing

MECHANICAL SPECIFICATIONS

PARAMETER/ PERFORMANCE TEST	TEST METHOD - DETAILS	PERFORMANCE REQUIREMENTS
Terminal Tensile Strength		40 Newtons
Resistance to Soldering Heat	260°C - 270°C for 10 secs	ΔR ± [0.2% + R05] – Typical
Solderability	JIS - C – 5202 para 6.5	Continuous and satisfactory (95% Min coverage)

TYPICAL APPLICATIONS

- HIP series of power type wire wound resistors have been specifically developed to cater to those OEM's which have automated assembly facilities for TV's and audio equipment.
- The terminations are designed as per international specifications so that they merely have to be inserted into the PCB and wave soldered.
- HIP series has fire retardant coating and is compatible with UL standards.
- Due to the configuration and method of manufacture, resistors of HIP series have rigidly bonded terminations ensuring high endurance against vibration / shock.

ORDERING INFORMATION

Series	Type	Packing	Resistance Value	Tolerance
HIP	H7P / H7P*	Bulk H7P* / H7P	150R	K

1. For RoHS version – H7P *
2. For Pulse type – H7P I