



**WIREWOUND, LOW OHM
CURRENT SENSE SURFACE MOUNT
POWER RESISTORS**

**HRW
SERIES**

- Wire wound and alloy ribbon element options.
- Moulded resistor construction.
- Tape and reel packing for pick & place machine.
 - Fusible type available.
 - Non inductive type available.
- Impulse resistors as per IEC 61000-4-5
 - 0.6W to 3W
 - R005 to 13K

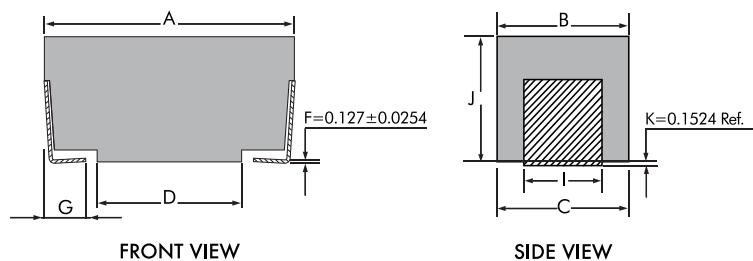




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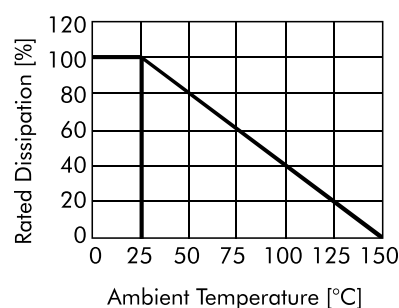
HRW

PHYSICAL CONFIGURATION



HTR SERIES	HTR TYPE	WATTS	A ± 0.51	B ± 0.13	C (REF)	D ± 0.254	G (NOM)	I ± 0.31	J ± 0.51	RESISTANCE RANGE		WT. (TYP)
										MIN	MAX	
HRW	SM0.6	0.6	5.14	2.54	2.41	2.00	1.28	1.64	3.42	R01	1K	0.08 Gms.
HRW	SM1	1.0	6.25	3.45	3.38	2.79	1.19	1.37	3.45	R005	1K	0.10 Gms.
HRW	SM2	2.0	11.56	6.10	5.99	6.60	1.58	3.63	5.74	R01	5K	0.90 Gms.
HRW	SM3	3.0	15.88	6.93	6.81	10.60	1.58	3.63	5.74	R005	13K	1.50 Gms.

DERATING CURVE



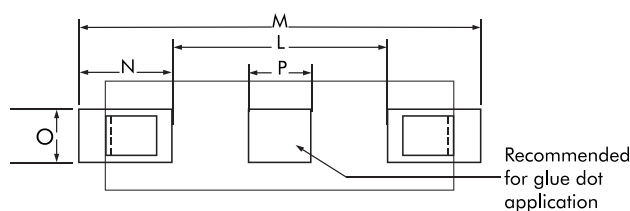
ELECTRICAL AND ENVIRONMENTAL CHARACTERISTICS

PARAMETER / PERFORMANCE TEST & TEST METHOD	PERFORMANCE REQUIREMENTS
Power Rating (Rated Ambient Temperature at 25°C)	Full power dissipation at 25°C and linearly derated to zero at +150°C
Resistance Tolerance	±10%[K]; ±5%[J]; ±1%[F]
Temperature Range	-55°C to +150°C with suitable derating as per derating curve above
Voltage Rating / Limiting Voltage / Max. Working Voltage	$\sqrt{P \times R}$
Short time Overload (5 x Rated Power for 5 Secs.)	$\Delta R \pm [1.25\% + 0.05\Omega]$
Temperature Cycle (-55°C to +125°C, 1000 cycles)	±0.5% + 0.05Ω
Thermal Shock (Units at -55°C, then rated power applied)	No mechanical damage
Load Life (1000 hours at 25°C)	±3.0% + 0.05Ω

MECHANICAL SPECIFICATION

PARAMETER / PERFORMANCE TEST & TEST METHOD	PERFORMANCE REQUIREMENTS
Resistance to Soldering heat - (260°C-270°C for 10 Secs)	±0.1% + 0.05 – Typical
Leaching (260°C Solder immersion, 60 sec.)	No visible leaching.
Flammability	Resistor shall not emit fire/flame, which even if it occurs will self extinguish within seconds

RECOMMENDED PC BOARD LAYOUT





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LOW OHM
CURRENT
SENSE
SURFACE
MOUNT
POWER
RESISTORS

HRW

DIMENSIONAL TABLE

HTR SERIES	HTR TYPE	PACKET	SIZE L (Ref)	M (Ref)	N (Ref)	O (Ref)	P (Ref)
HRW	SM0.6	2010	1.98	8.33	3.18	3.20	0.66
HRW	SM1	2412	3.81	8.79	2.49	3.20	1.27
HRW	SM2	4527	8.05	14.86	3.40	3.94	2.36
HRW	SM3	6927	12.04	18.85	3.40	3.94	2.36

TERMINATION

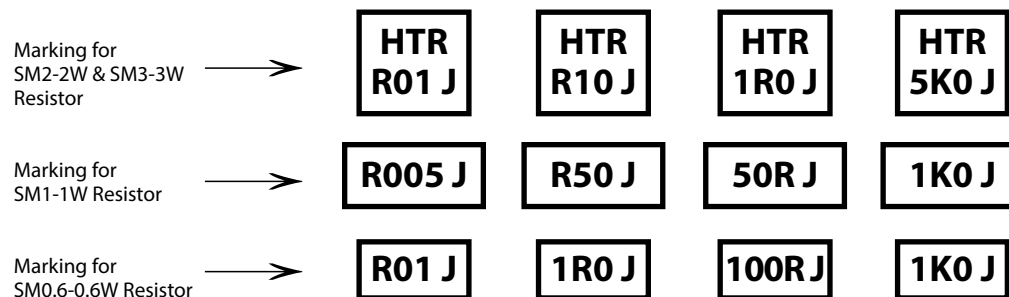
Material : Copper Grade.

Plating Details : Tin Plating Of 6.0 Micron (Min)

MARKING

Marking notes

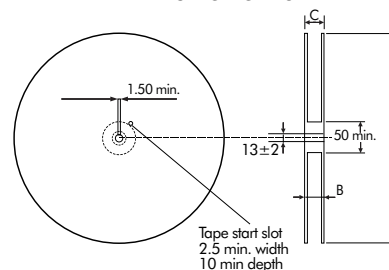
- First line stands for HTR logo in 2W & 3W size & not applicable for 0.6W & 1W size.
- Second line stands for resistance value for
eg. 0.01OHM = R01, 0.1OHM = R10, 1OHM = 1R0, 10OHM = 10R, 100OHM = 100R, 1000OHM = 1K0 followed by TOL.
Letter "F" stands for TOL, $\pm 1\%$, Letter "G" stands for TOL, $\pm 2\%$, Letter "H" stands for TOL, $\pm 3\%$, Letter "J" stands for TOL, $\pm 5\%$,
Letter "K" stands for TOL, $\pm 10\%$.
It is applicable for all wattages.



PACKING

- BULK PACKING :**
FOR SM0.6 \Rightarrow 2500 Resistors shall be packed in small box "I Type" of approximate size 70mmx70mmx70mm.
FOR SM1 \Rightarrow 2000 Resistors shall be packed in small box "I Type" of approximate size 70mmx70mmx70mm.
FOR SM2 \Rightarrow 1000 Resistors shall be packed in small box "I Type" of approximate size 70mmx70mmx70mm.
FOR SM3 \Rightarrow 500 Resistors shall be packed in small box "I Type" of approximate size 70mmx70mmx70mm.
- TAPE & REEL PACKING :**

REEL SPECIFICATION



REEL DIMENSIONS (mm)

HTR SERIES	HTR TYPE	SIZE	A (nom)	B (+ 2/-0)	C (max)	QUANTITY
HRW	SM0.6	12	330.2	12.4	18.4	2500
HRW	SM1	12	330.2	12.4	18.4	2000
HRW	SM2	24	330.2	24.4	30.4	1000
HRW	SM3	24	330.2	24.4	30.4	1000