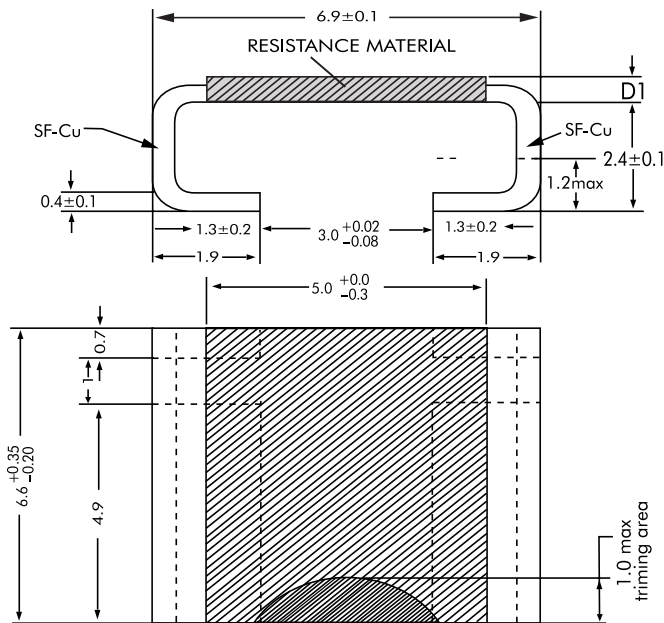


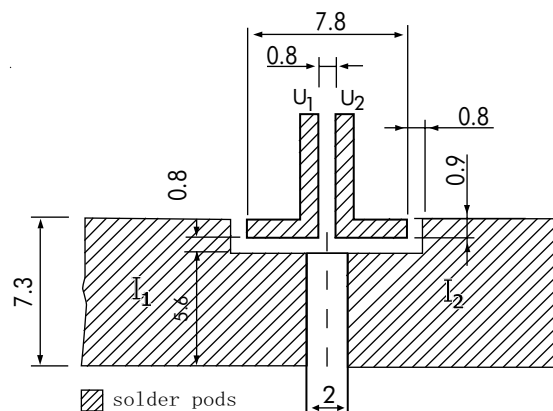
1. Ideal for Current sense and High Current application.
2. Sulfur free copper connection.
3. Max. Solder temp. upto 350 ° C

## ● Dimensions



Type	HI-Techpart Name	Resistive Material	D1 (MM)	Internal Heat Resistance (Rthi)	Typical Weight Per PC (gms)
1	HBE5W* R0005 F	ZERANIN30	0.45 ± 0.10	8° K/W	0.45
2	HBE5W* R001 F	MANgNIN	0.33 ± 0.10	15° K/W	0.30
3	HBE5W* R002 F	ISAOHM / FeCr8020	0.67 ± 0.10	14° K/W	0.55
4	HBE3W* R003 F	ISAOHM / FeCr8020	0.44 ± 0.10	21° K/W	0.33
5	HBE2W* R005 F	ISAOHM / FeCr8020	0.44 ± 0.10	33° K/W	0.33

## ● Recommended PCB - Layout



## Ordering Information

Example:

HBE	5	F	T	R047
(1)	(2)	(3)	(4)	(5)
Series Name	Power Rating	Resistance Tolerance	TCR	Resistance

(1)Type: HBE SERIES

(2)Power Rating: 2=2W,3W=3W,5=5W

(3)Tolerance: F  $\pm$  1%

(4)TCR:<100 ppm/ $^{\circ}$ C (Depainding on Resistance Value)

(5)Resistance Value:10R0=10R、R10=0.1 $\Omega$ 、47R0=47 $\Omega$

## Applications And Ratings

Type	Rated Power (W)	Resistance Range ( $\Omega$ )	TCR(PPM/ $^{\circ}$ C)	Tolerance Range	Operating Temperature
HRE	2W	R0005 to R005	<100 ppm/ $^{\circ}$ C	F $\pm$ 1%	- 55 $^{\circ}$ C to +170 $^{\circ}$ C
	3W				
	5W				

## Performance Characteristics

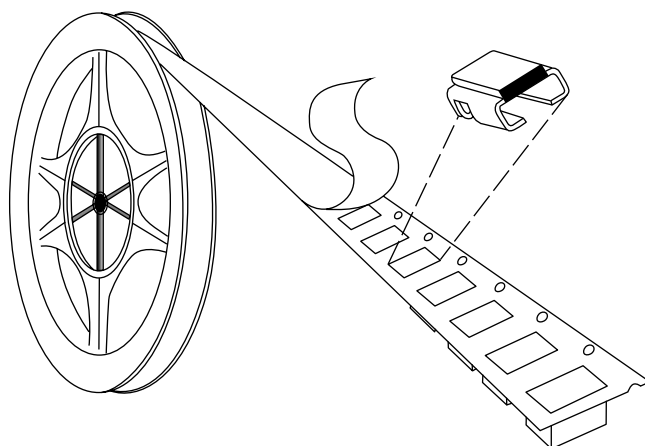
Parameter/Performance Test & Test Method	Performance Requirements
Power Rating - 5W (Rated Ambient Temperature)	Full power dissipation at 85 $^{\circ}$ C and linearly derated to zero at + 140 $^{\circ}$ C
Insulation	Not Insulated
Resistance Tolerance	$\pm$ 1% (0.5% and other tolerance available on request)
Temperature Range	- 55 $^{\circ}$ C to +170 $^{\circ}$ C
Voltage Rating / Limiting Voltage / Max. Working Voltage	$\sqrt{P \times R}$
Short time Overload (5 x Rated Power for 5 Secs.)	$\Delta R \pm [ 1.25 \%R0 + R0005 ]$
Resistance Temperature Characteristics	<100 ppm/ $^{\circ}$ K (Depainding on Resistance Value)
Damp Heat(Steady State)(40 $^{\circ}$ C at 93 % R.H.for 1000 Hrs.-no load applied)	$\Delta R \pm [ 0.5 \%R0 + R0005 ]$ - Average
Endurance-Load Life [ 70 $^{\circ}$ C with limiting voltage -1.5 hours on / 0.5 hours off for 1000 hours ]	$\Delta R \pm [ \leq 2.75 \%R0 + R0005 ]$ - Average
Resistance to Soldering heat - (350 $^{\circ}$ for 30 Secs)	$\Delta R \pm [ 0.2 \%R0 + R0005 ]$ -Typical
Solderability ( As per IEC pub. 60068-2-20)	Must meet the requirements laid down

## Packaging

### A. BULK

Resistors shall be packed in sealed plastic packets with silica gel pouch placed in small cardboard cartons (Type 'I' Box) of approximate size 70mmx70mmx70mm - 500pcs. & such 4 Boxes packed in (Type 'A' Box) of approximate size 200mmx150mmx70mm & 8 Boxes in (Type 'B' Box) of approximate size 295mmx140mmx80mm. & such 36 Boxes of Type 'I' or 6 Boxes of Type 'A' packed in Master Carton of approximate size 320mmx245mmx245mm.

## B. TAPE & REEL PACKING



SPECIFICATION	TAPEWIDTH	PARTS PER REEL
EIA-481-D	16mm	1400 pcs

Storage Condition (Packed) : Temp 25° C to 35° C, Humidity 30 to 80% RH, Shelf life-12 months.  
Floor Life (Unpacked) : Temp 25° C to 35° C, Humidity 30 to 80% RH, Floor life-15 days.