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LOW OHM BATTERY SHUNT RESISTORS

HEB

SERIES

Size 8420 (Metric) & 8518 (Metric)

- Open frame electron beam welded punched out type
- 6W to 36W
- R00005 to R001

AEC-Q200 Qualified

Pb-free RoHS COMPLIANT

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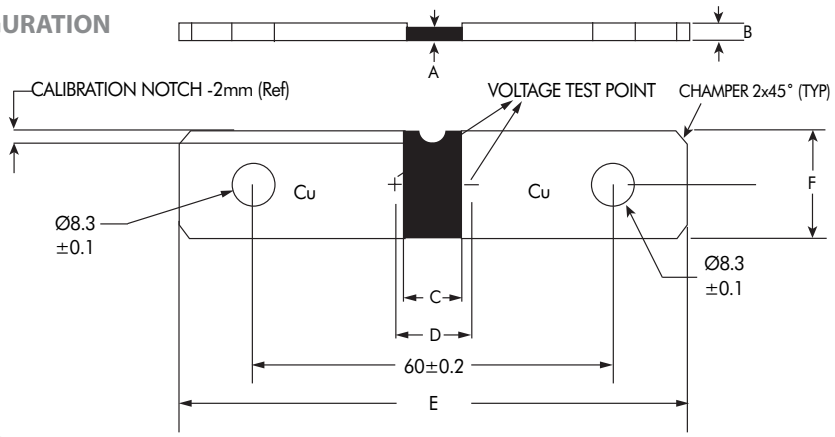
Size 8420 (Metric) & 8518 (Metric)

PHYSICAL CONFIGURATION



DIMENSIONAL TABLE

				Dimensions as per size 8420 (Metric)				Dimensions as per size 8518 (Metric)			
SR NO.	PART NO.	A ± 0.20	B ± 0.1	C ± 0.5	D ± 0.2	E ± 0.3	F ± 0.10	C± 0.5	D± 0.2	E ± 0.3	F± 0.10
1	HEB36W R00005 J	2.2	3	5	8.2	84	20	4.5	7.7	85	18
2	HEB15W R0001 J	2.2	3	10	13.2	84	20	9	12.2	85	18
3	HEB8W R0002 J	2	3	18	21.2	84	20	16.5	19.7	85	18
4	HEB36W R00025 J	2	3	23	26.2	84	20	21	24.2	85	18
5	HEB7W R0005 J	2	3	14	17.2	84	20				
6	HEB6W R001 J	2	3	28	31.2	84	20				
7	HEB36W R000125 J	2	3					10.3	13.5	85	18
8	HEB36W R000035 J	2	3	4.8	8	84	20				
NOTE : HEB6W R001 F have calibration notch from both side to achieve Resistance value											

APPLICATIONS

- Current sensor for EBM (Electronic Battery Management) in motorcars, trucks, forklifts, hybrid & electric vehicles.
- Current sensing in bus bars.
- Current sensing in welding equipments

FEATURES

- Upto 15W permanent power in free air.
- Continuous current load upto 350A (0.1 mohm)
- High pulse power rating.
- Maximum fastening torque 10Nm
- Shunt available with tinned or untinned terminals.

ELECTRICAL AND ENVIRONMENTAL CHARACTERISTICS

PARAMETER / PERFORMANCE TEST & TEST METHOD	PERFORMANCE REQUIREMENTS
Power Rating	For FeCrAl - Full power dissipation at 70° C and linearly derated to zero at +170° C. For Manganin (< 0.5% Improved Stability) - Full power dissipation at 105° C & linearly derated to zero at +135° C. For Manganin (< 1% Stability) - Full power dissipation at 140° C and linearly derated to zero at +170° C.
Inductance	< 1nH
Resistance Tolerance	± 1% (0.5% and other tolerance available on request)
Temperature Range	- 40° C to +170° C
Voltage Rating / Limiting Voltage / Max. Working Voltage (Subject to max. Terminal Temperature of 120° C)	$\sqrt{P \times R}$
Temperature Coefficient of Resistance (Ambient Temperature Range 20° C - 60° C)	< 50 ppm / K (Depending on Resistance Value) For resistance values < 0.05 m Ω TCR on Request
Life Test / Operational Life - 2000 h rated power with Temperature limitation on Terminal kept at 120° C	ΔR ± 1% - Average
Thermal EMV (0-60° C)	0.3µV/K
Internal heat resistance (Rthi)	From 2°K/W

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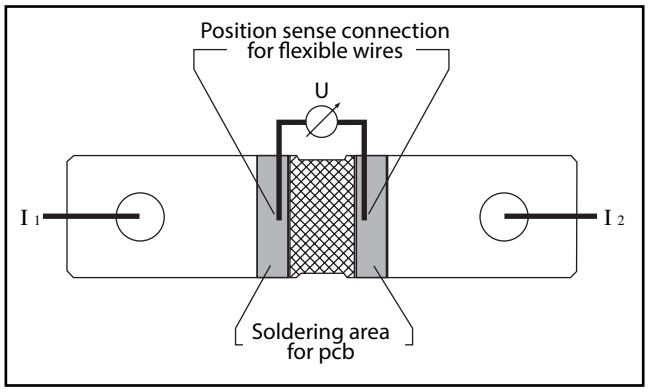
CONNECTION DIAGRAM



PACKAGING

Resistors shall be packed in sealed plastic packets placed in small cardboard cartons (Type 'A' Box) of approximate size 200mmx150mmx70mm - 200pcs. & such 2 Boxes packed in Master Carton of approximate size 310mmx205mmx95mm.

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

MARKING

HTR PART NO	PRINTING
HEB15W R0001 J	HTR R0001 5% DATECODE

ORDERING INFORMATION

SERIES	TYPE	PACKING	RESISTANCE VALUE	TOLERANCE
HEB	HEB15W / HEB15W	Bulk - HEB15W / HEB15W	R0001	F

1. All types are RoHs compliant
2. For Tinned version - HEB15W-T

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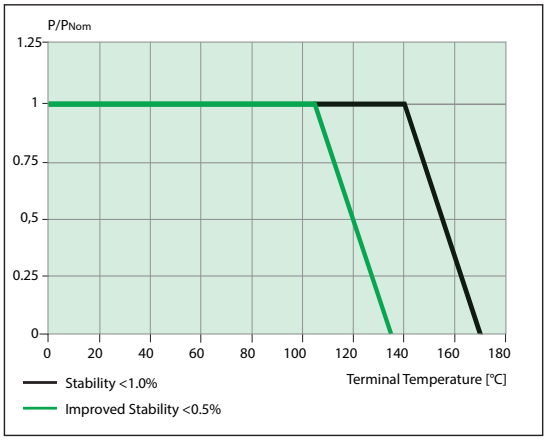
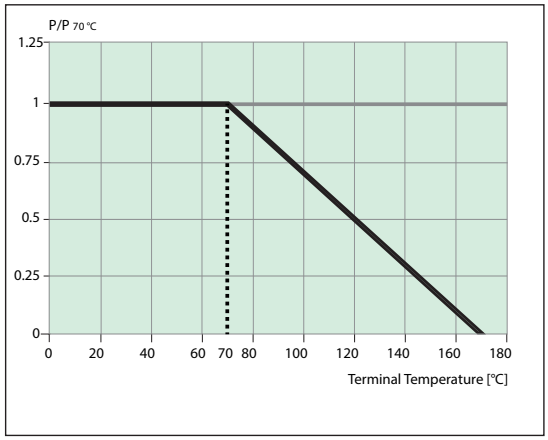
TYPICAL POWER DERATING CURVE FOR RESISTOR WHEN FULL POWER IS AT 105° C & 140° C

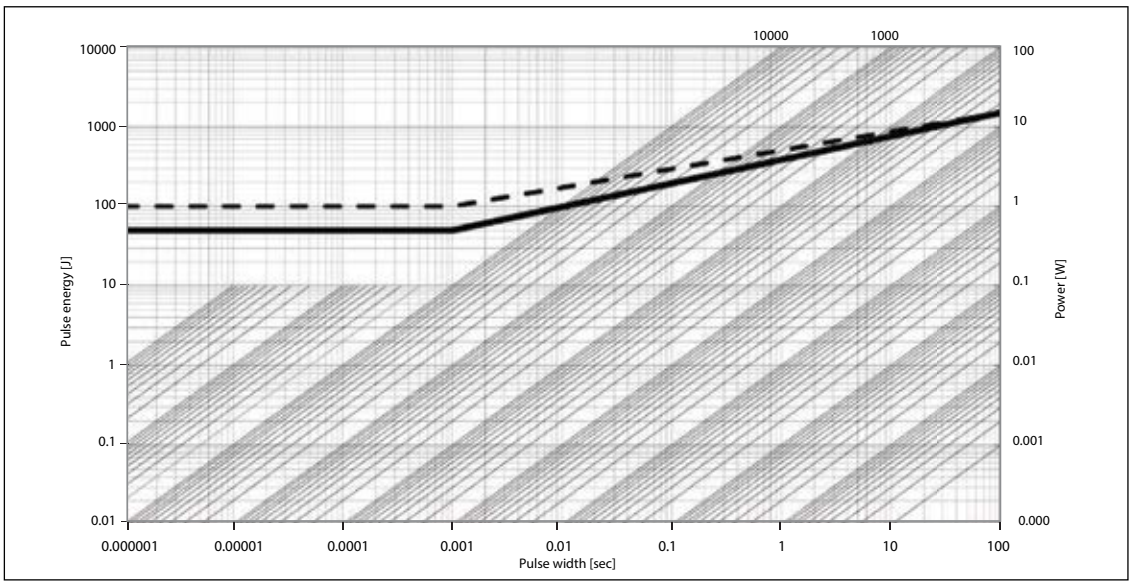


TYPICAL POWER DERATING CURVE FOR RESISTOR WHEN FULL POWER IS AT 70° C



In case the Design Engineer requires a specific graph of a particular component it can be supplied on request.

MAXIMUM PULSE ENERGY WITH RESPECT TO PULSE POWER FOR PERMANANT OPERATION



– – Single pulse
—— Pulse power for continuous operation.

This curve is only valid for the resistance value R0001.
The shape of the curve in the range below 0.1 sec will be different for other resistance values.
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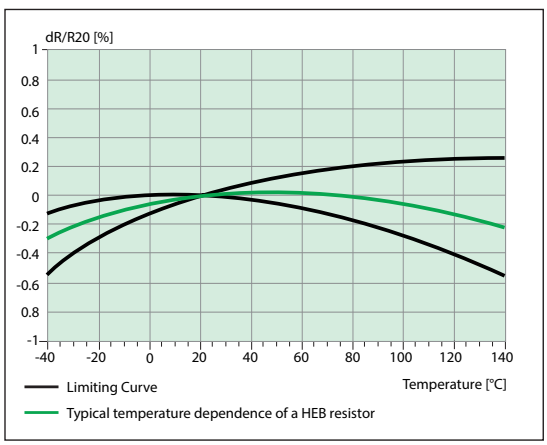
TYPICAL TEMPERATURE DEPENDANCE OF THE ELECTRICAL RESISTANCE



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LOW OHM BATTERY SHUNT RESISTORS

HEB

SERIES

Size 6018, 6315, 6918, 5520, 5216, 7036

- Open frame electron beam welded punched out type
- 15W to 50W
- R00005 to R001

AEC-Q200 Qualified

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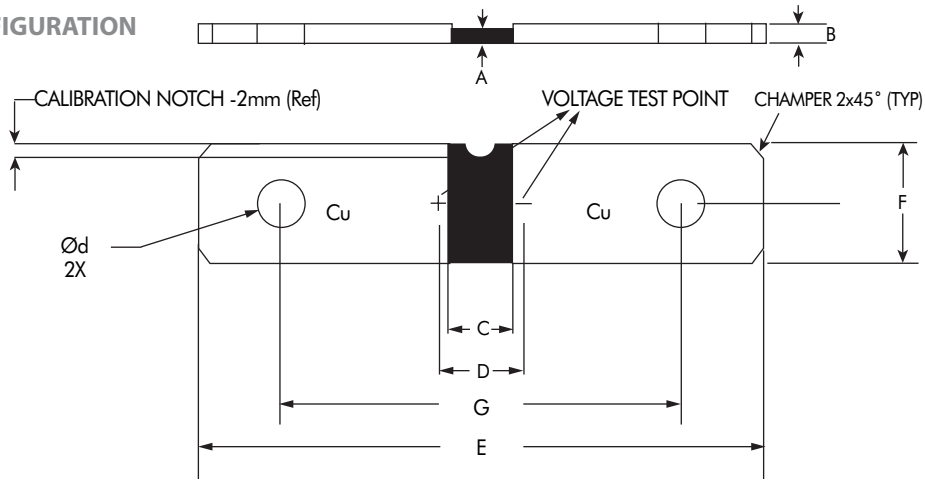

DIMENSIONAL TABLE

SR NO.	HI-TECH PART NAME	A ± 0.20	B ± 0.1	C ± 0.5	D ± 0.2	E ± 0.3	F±0.10	G± 0.1	ød± 0.10	CHAMPER	
1	HEB15W R0001 J (6018)	2	3	8.3	11.4	60	18	44	6.6	2X45 (3Place)	5X45 (1Place)
2	HEB15W R0001 J (5216)	2.2	3	8.1	11.2	52	16	33.7	6.6	1X45 (3Place)	3X45 (1Place)
3	HEB36W R000075 J (6315)	1.92	3	5	8.1	63	15.5	48	5	2X45 (3Place)	5X45 (1Place)
4	HEB36W R00005 J (6918)	2	3	4.5	6.6	69	18	52	6.6	2X45 (3Place)	5X45 (1Place)
5	HEB50W R00005 J (7036)	2	3	9.4	12.5	70	36	50	8.5	2X45 (3Place)	10X45 (1Place)
6	HEB15W R001 J (5520)	2.2	3	10	18.2	55	20	40	6.3		

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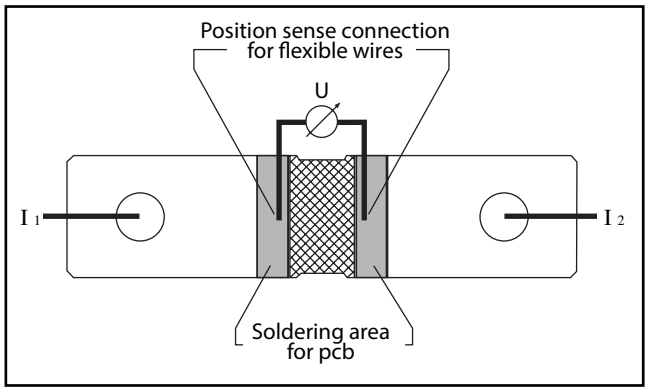

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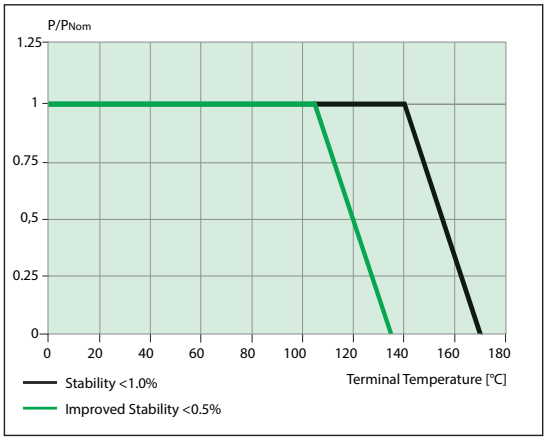

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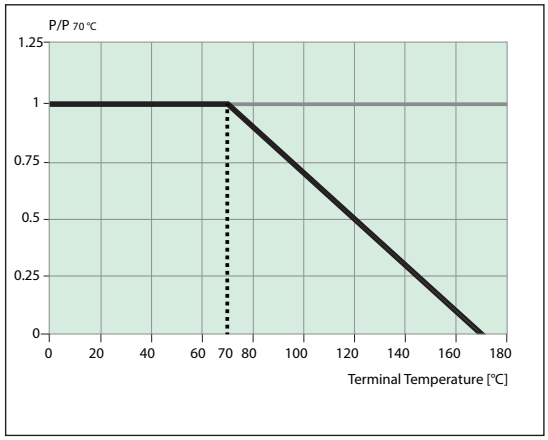

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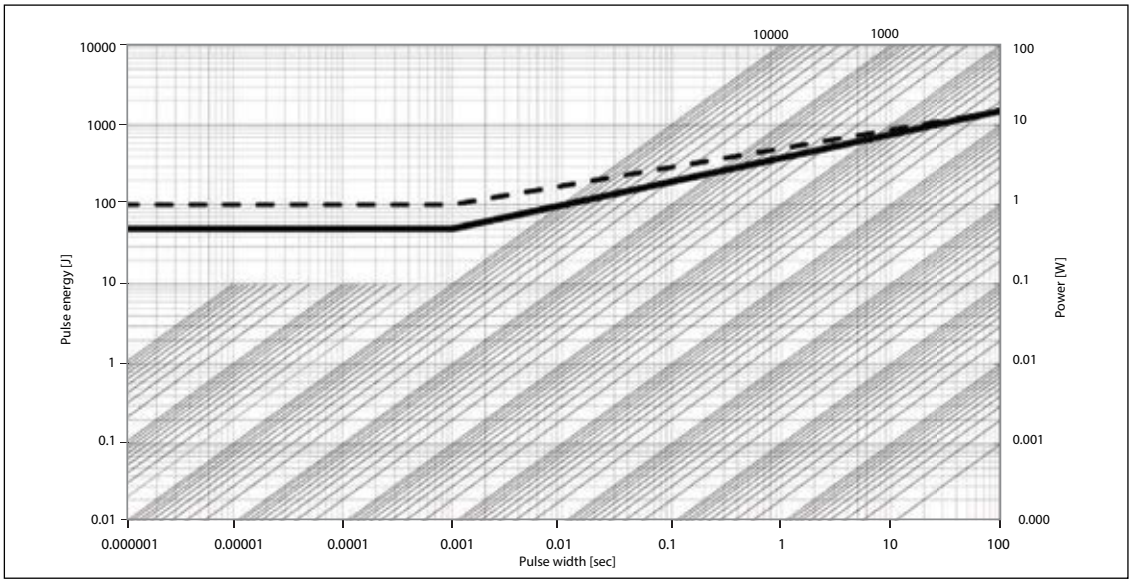

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