MUNDORF®

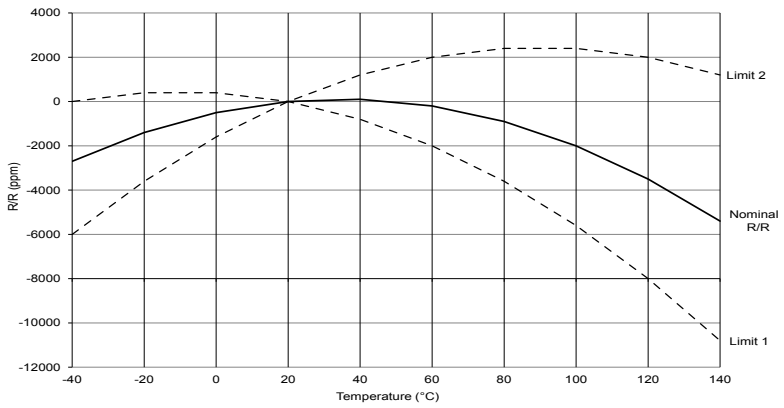
MRESIST ULTRA FILM RESITOR

- Resistances from 0.01Ohm to 47Ohms
- Power Rating to 30Watt
- TCR to ±50ppm/K
- Load Stability to 0.1%
- TO-218 (TO-247) Housing

TABLE 1—SPECIFICATIONS

TYPE		MREU30				
Resistance Range		0.01 to 47 Ohms				
Power Rating	Free air 65°C	3 W				
	With heatsink	30 W				
Tolerance		1%				
Thermal Resistance		2.5 K/W				
Temperature Coefficient (ppm/K) (20 to 60°C)			R ≤ 0R010	R ≤ 0R050	R ≤ 0R500	R > 0R500
			±150	±100	±50	±30
Voltage Proof		300VDC / Option AC: 500 VAC				
Thermal EMF		<0.1 µV/K				
Operating Temperature Range		–40°C to 130°C				
Resistor Material		CuNiMn-Foil				
Substrate		Copper				
Housing		PPS				
Connector Material		Cu / tinned				
Terminals		2				
Max. Torque		1 Nm				

FIGURE 1—TEMPERATURE COEFFICIENT



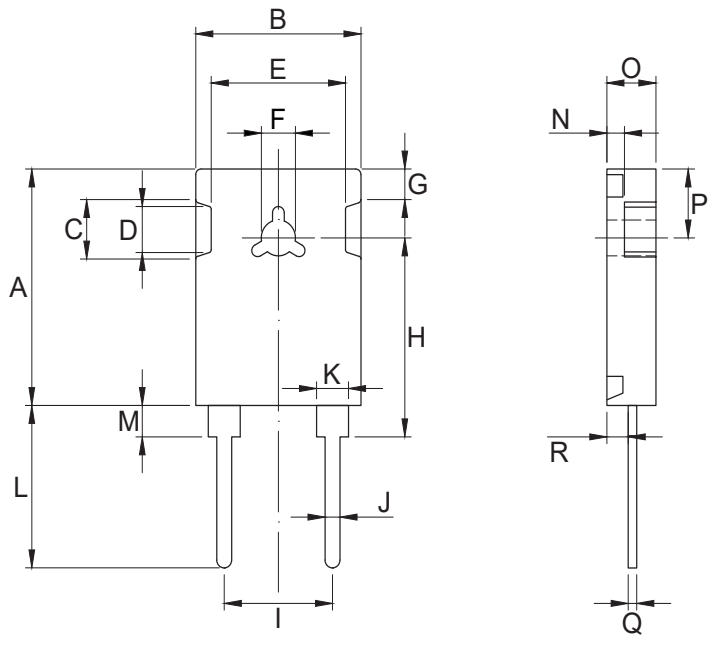
Film Resistor
MResist Ultra MREU30-1,5T1C

Specifications

Substance Detail for Components

Component Description	Material Name	Substance Name	CAS Number	Weight in grams	Percent
Leads	Copper Lead C	Copper (Cu)	7440-50-8	0,70000	12,091%
Lead Plating	Tin Plating	Tin (Sn)	7440-31-5	0,00480	0,083%
		Copper (Cu)	7440-50-8	0,00040	0,007%
		Silver (Ag)	7440-22-4	0,00008	0,001%
Inside Soldering		Tin (Sn)	7440-31-5	0,00960	0,166%
		COPPER (CU)	7440-50-8	0,00080	0,014%
		Silver (Ag)	7440-22-4	0,00016	0,003%
Heatsink	Copper	Copper (Cu)	7440-50-8	3,60000	62,181%
Chipbond	Filled Epoxy	Elecolit 6604	25068-38-6	0,05000	0,864%
Basic Material	Aluminium anodized	Aluminium (AlMg3)	7429-90-5	0,10000	1,727%
Foilbond	Pyralux LF	Acrylat	127-19-5	0,01000	0,173%
Resistor Material	Manganin®[1]	Copper (Cu)	7440-50-8	0,09100	1,572%
		Nickel (Ni)	7440-02-0	0,00330	0,057%
		Manganese(Mn)	7439-96-5	0,01540	0,266%
Cover	Silicone based	VU 4691 Wepesil	7440-21-3	0,00400	0,069%
Mold	Polyphenylensulfid	Fortron 1140L4	26125-40-6	1,20000	20,727%

MREU Dimensions



Dimension	mm (Inches)
A ±0,2 (±0,008)	21,10 (0,83)
B ±0,2 (±0,008)	15,50 (0,61)
C ±0,1 (±0,004)	4,90 (0,19)
D ±0,1 (±0,004)	4,00 (0,16)
E ±0,2 (±0,008)	12,60 (0,50)
F ±0,1 (±0,004)	Ø 3,2 (Ø0,13)
G ±0,1 (±0,004)	2,95 (0,12)
H ±0,2 (±0,008)	17,72 (0,70)
I ±0,2 (±0,008)	10,16 (0,40)
J ±0,1 (±0,004)	1,40 (0,06)
K ±0,1 (±0,004)	3,00 (0,12)
L ±0,2 (±0,008)	14,50 (0,57)
M ±0,1 (±0,004)	2,80 (0,11)
N ±0,1 (±0,004)	1,65 (0,06)
O ±0,1 (±0,004)	4,60 (0,18)
P ±0,2 (±0,008)	6,15 (0,24)
Q ±0,1 (±0,004)	0,80 (0,03)
R ±0,1 (±0,004)	2,00 (0,08)