MCH-T 600 Power Thick Film Resistorr

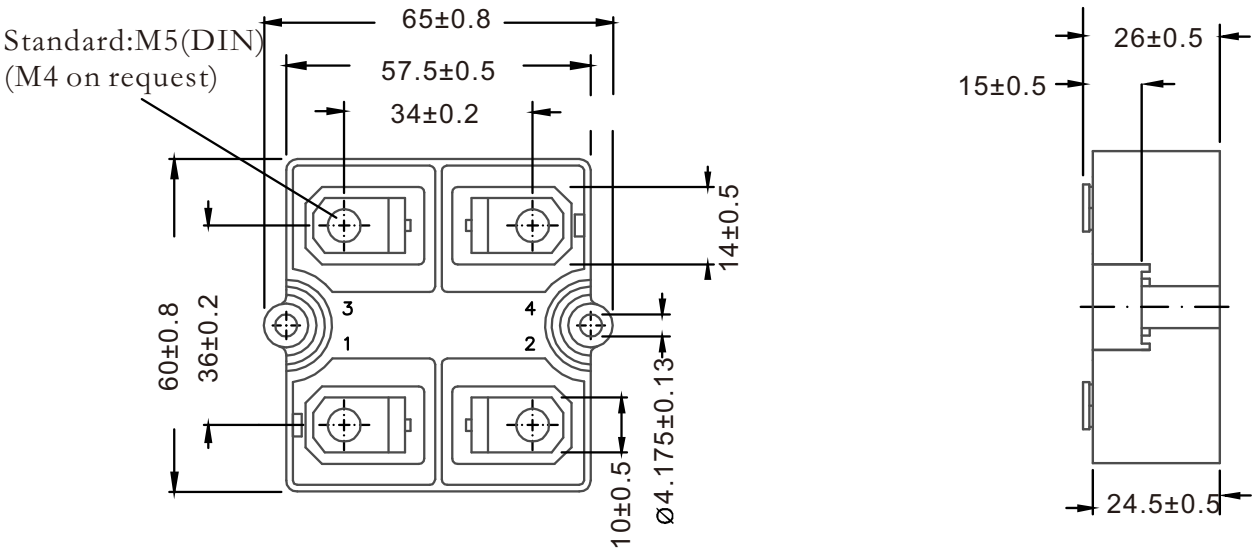
Features

Ⅰ Non-Inductive design
Ⅱ ROHS compliant
Ⅲ High insulation & partial discharge performance
Ⅳ Materials in accordance with UL 94 V-0

Applications

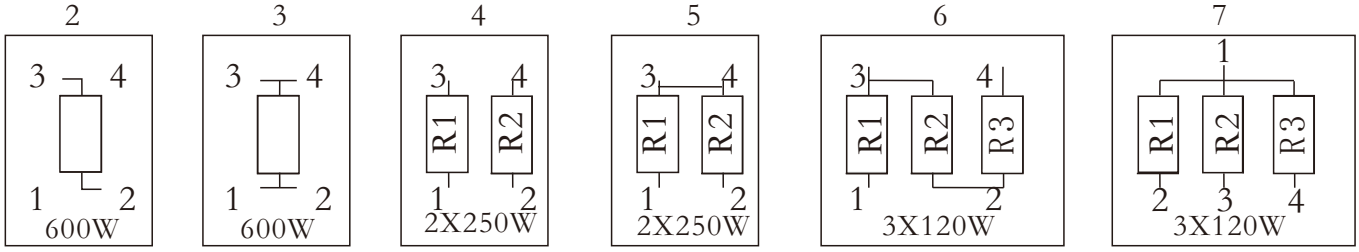
Ⅰ Industridl automation equipment
Ⅱ power supplies
Ⅲ servo motor,servo driver,power liad
Ⅳ wind power pitchsystem,wind power electronic control system and conrerter
Ⅴ electric power control sqstem

Dimensions (mm)



Configurations (P / package)

Standard version



Ordering Information

Example:

MCH-T	600	J	R100	C
(1)	(2)	(3)	(4)	(5)
Series Name	Power Rating	Resistance Tolerance	Resistance	T.C.R

(1)Type: MCH-T SERIES

(2)Power Rating: 600=600W

(3)Tolerance: F=±1%,G=±2%,J=±5%,K=±10%

(4)Resistance Value:R100=0.1Ω

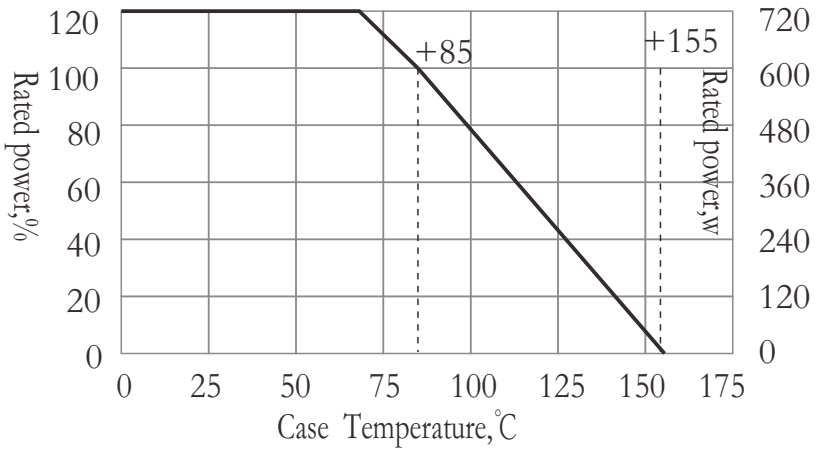
(5)T.C.R:C=±150PPM/℃,D=±500PPM/℃

Applications And Ratings

Type	Rating Power (85℃)	Resistance Range (Ω)	TCR	Tolerance	Working temperature
MCH-T	600W	0.03Ω—1MΩ	±150~±500PPM/℃	F±1% G±2% J±5% K±10%	-55℃~+155℃

Requirements For System Heat Dissipation

Housings are made without color additives. The color definition is natural and can vary in different pigmentation



Derating (thermal resist.) MCH-T-600:8.33 W/K (0.12 K/W) for configuration 2 and 3
Power rating: 600 W at 85℃ bottom case temperature*
* This value is only applicable when using a thermal conduction to the heat sink Rth-cs<0.025 K/W. This value can be obtained by using a thermal transfer compound with a heat conductivity of at least 1 W/mK. The flatness of the cooling plate must be better than 0.05 mm overall. Surface roughness should not exceed 6.4 μm.

Performance

Test Items	Test Methods(IEC 60115)
Resistance value	0.03 Ω to 1 MΩ (higher values on request)
Resistance tolerance	±5 % to ±10 %, ±1 % to ±2 %on special request for limited ohmic values with the reduction of the max. power / pulse rating (ask for details)
Temperature coeffcient	±500 ppm/°C (0.1 Ω to 0.2 Ω)standard , ±150 ppm/°C (>0.2 Ω to 1MΩ) standard lower TCR on special request for limited ohmic values
Power rating	up to 600 W at 85° C bottom case temperature(see configurations)
Short time overload	1000 W at 70° C for 10s., ΔR = 0.4% max.(for configuration 2 and 3)
Operating working voltage	5000 V DC = 3500 V AC RMS (50 Hz) higher voltage on request, not exceeding max. power
Dielectric strength	7 kVrms / 50 Hz / 500 VA, test time 1 min. between terminal und case (up to 12 kVrms on request)voltages above 10 kVrms are tested at DC equivalent to avoid pre damage of component
Dielectric strength between R1-R2	≤ 5 kV DC (for conf. 4)
Partial discharge	4 kVrms < 10 pC(up to 7 kVrms < 10 pC on request)acc. to IEC 60270
Insulation resistance	> 10 GΩ at 1000 V
Single shot voltage	up to 12 kV norm wave (1.5/50 μs)
Inductance	≤ 80 nH (typical), measuring frequency 10 kHz
Capacity/mass	≤ 140 pF (typical), measuring frequency 10 kHz
Capacity/parallel	≤ 40 pF (typical), measuring frequency 10 kHz
Operating temperature	-55° C to +155° C
Mounting - torque for contacts	1.8 Nm to 2 Nm, screw-in depth max. 6 mm
Mounting - torque	1.6 Nm to 1.8 Nm M4 screws
Contacts	standard M5 (M4 on special request)
Terminal tops for additional insulation requirements	on special request (ask for details)
General pulse load information	contact our local Miba representative or contact us directly