Current Sensing Resistors

Using advanced welding techniques and nickel alloys these resistors have a long term stability of less than 50ppm/℃. The simple four port Kelvin design ensures easy installation on large current bus bars. Current of 170A(0.1mΩ-3W), 100A(0.1mΩ-2W) and 350A(0.1mΩ-14W) are standard. Applications include: Current detection in precise power sources, constant current sources, industrial power conversion circuits, HEVs, fuel cells and constant electronic loads.



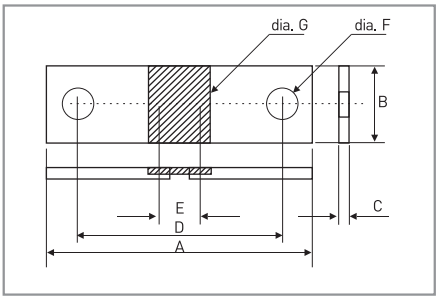
GENERAL SPECIFICATIONS

Model	Power Rating[W]	Resistance[Ω]	Resistance Tolerance[%]
TCS2	2	0.1m~0.5m	F [±1.0]
TCS3	3		J [±5.0]
TCS14	14	0.1m	J [±5.0]

CHARACTERISTICS

TEST	TCS2	TCS3	TCS14
Temperature Range			-55℃~+125℃
Temperature Storage			-55℃~+125℃
Temperature Coefficient	0~80ppm/℃		±50ppm/℃
Overload	2KW for 0.1second	3KW for 0.1second	5 X Power rating 5 seconds
Inductance	15nH	17nH	3nH

DIMENSIONS [mm]



Model	Dimensions [mm]						
	A	B	C	D	E	F	G
TCS2	50.0	12.0	2.0	35.0	See Below	6.2	3.2
TCS3	55.0	15.0	2.0	40.0		6.2	0.8
TCS14	84.0	20.0	3.0	66.0		8.3	0.8

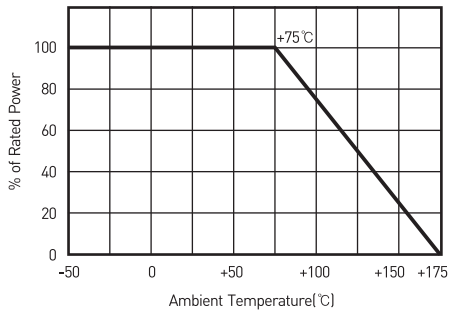
Model	Dimensions of E [mm]				
	0.1mΩ	0.2mΩ	0.3mΩ	0.4mΩ	0.5mΩ
TCS2	5.6	7.7	9.6	11.6	14.0
TCS3	7.0	9.6	12.0	14.5	17.5
TCS14	9.0	N/A	N/A	N/A	N/A

CURRENT RATING

Resistance	0.1mΩ	0.2mΩ	0.3mΩ	0.4mΩ	0.5mΩ
TCS2	141.4A	100.0A	81.6A	70.7A	63.2A
TCS3	173.2A	122.4A	100.0A	86.6A	77.4A
TCS14	350A	N/A	N/A	N/A	N/A

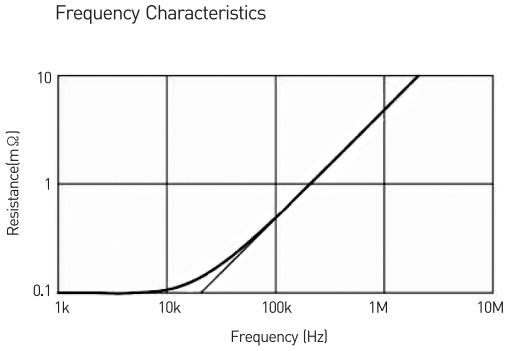
Tel: 82-32-817-4325 Fax: 82-32-817-4329

DERATING CURVE

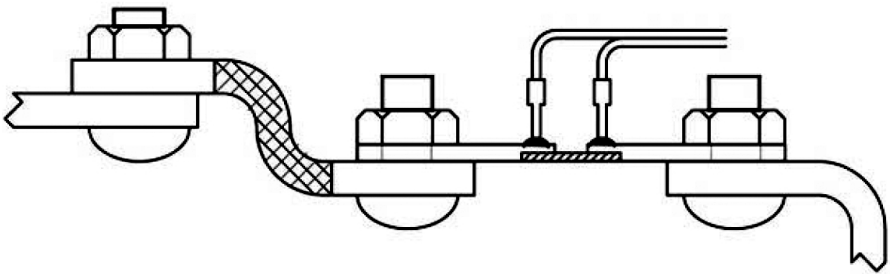


FREQUENCY CHARACTERISTICS

TCS2, TCS3, TCS14



MOUNTIING RECOMMENDATION



Note:
1. When TCS2,3 current detector is attached to current bus, mechanical strain shall be rejected from the resistor as shown in above illustration.
2. Resistance shall be made by calculating from DC voltage on detecting terminal at application of current through current terminals.
3. Voltage output Copper pins shall be contacted to Copper terminals of resistor

ORDERING PROCEDURE EXAMPLE

