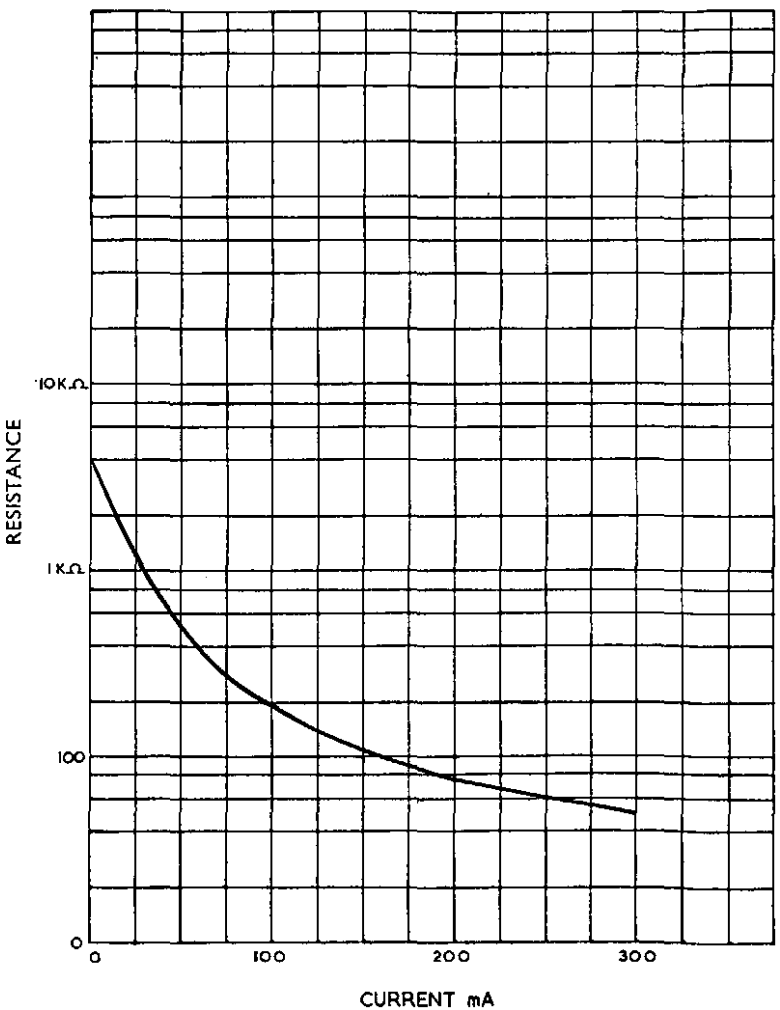
BRIMISTORS

Rod Type Thermistors

Types CZ1 and CZ1A

RESISTANCE CURRENT CHARACTERISTIC (AT 20°C)

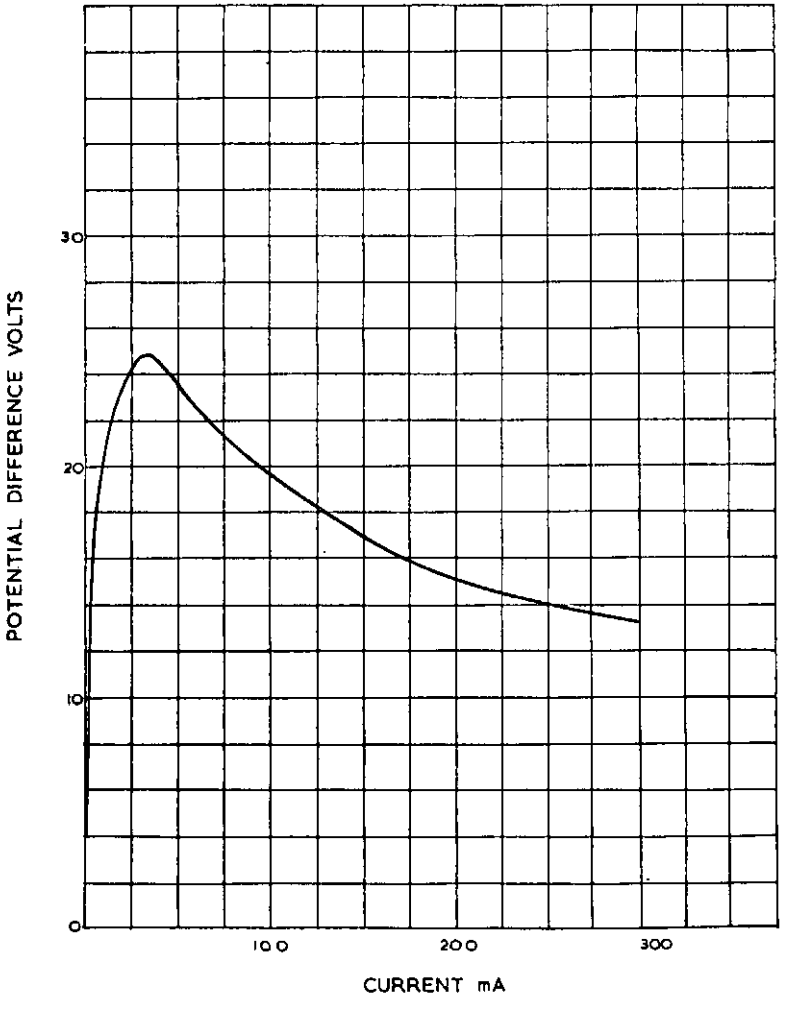


STC

Types CZ1 and CZ1A

CONTINUED

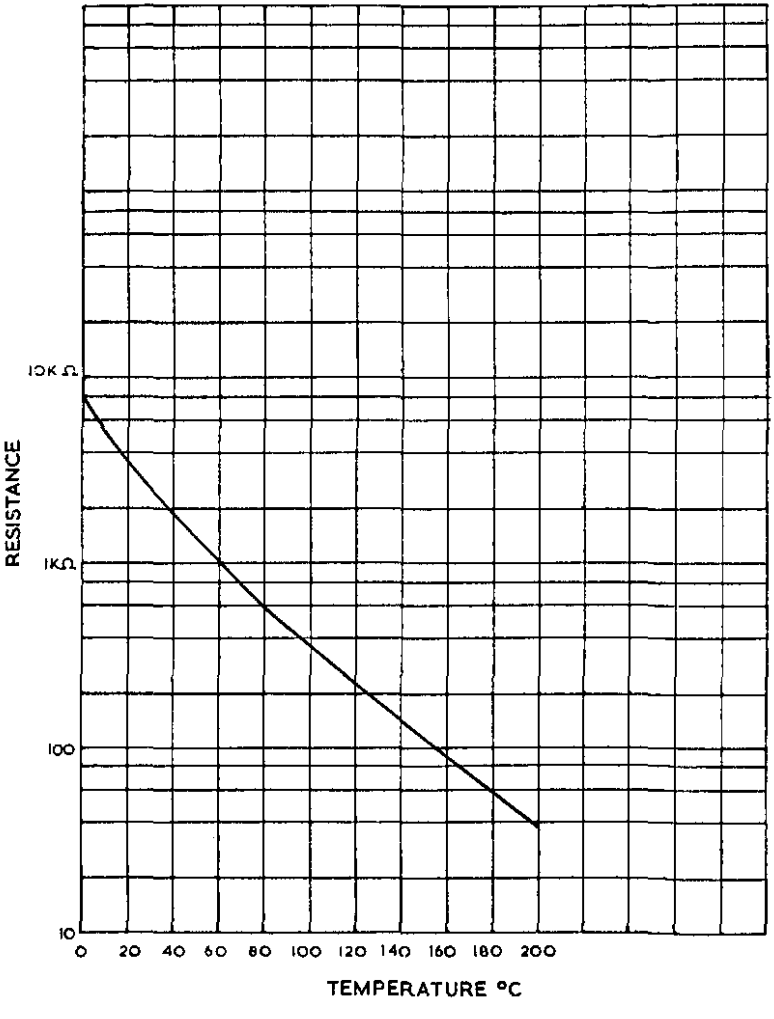
VOLTAGE CURRENT CHARACTERISTIC (AT 20°C)



Types CZ1 and CZ1A

CONTINUED

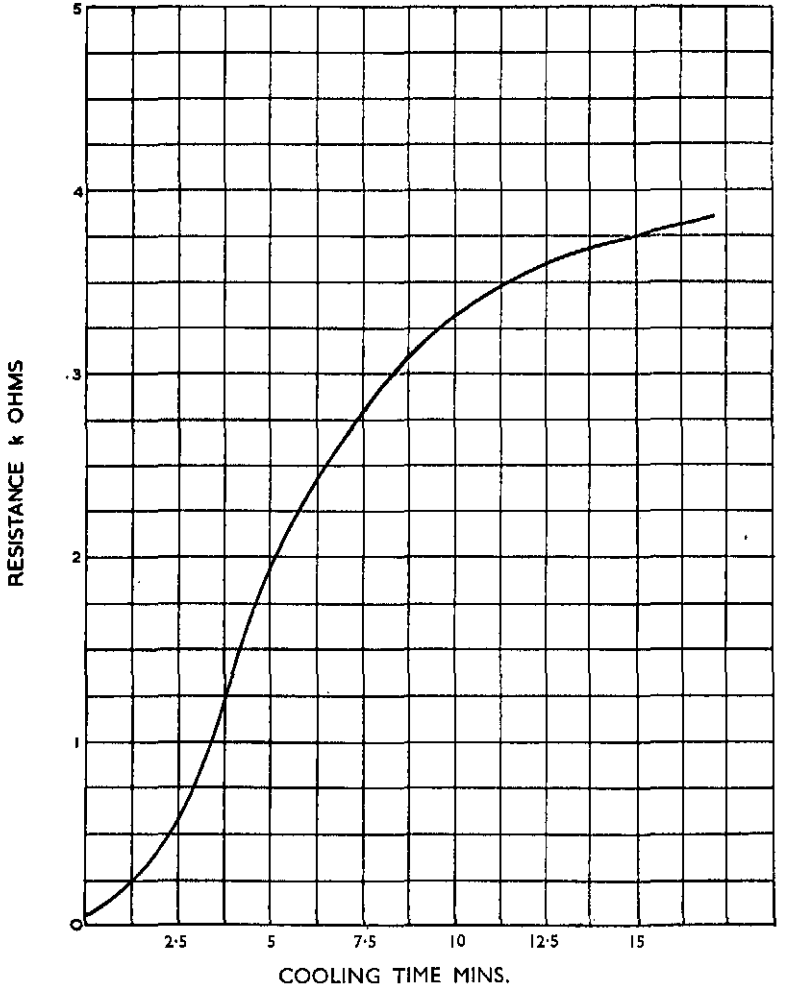
RESISTANCE TEMPERATURE CHARACTERISTIC



Types CZ1 and CZ1A

CONTINUED

COOLING CURVE FROM MAX CURRENT

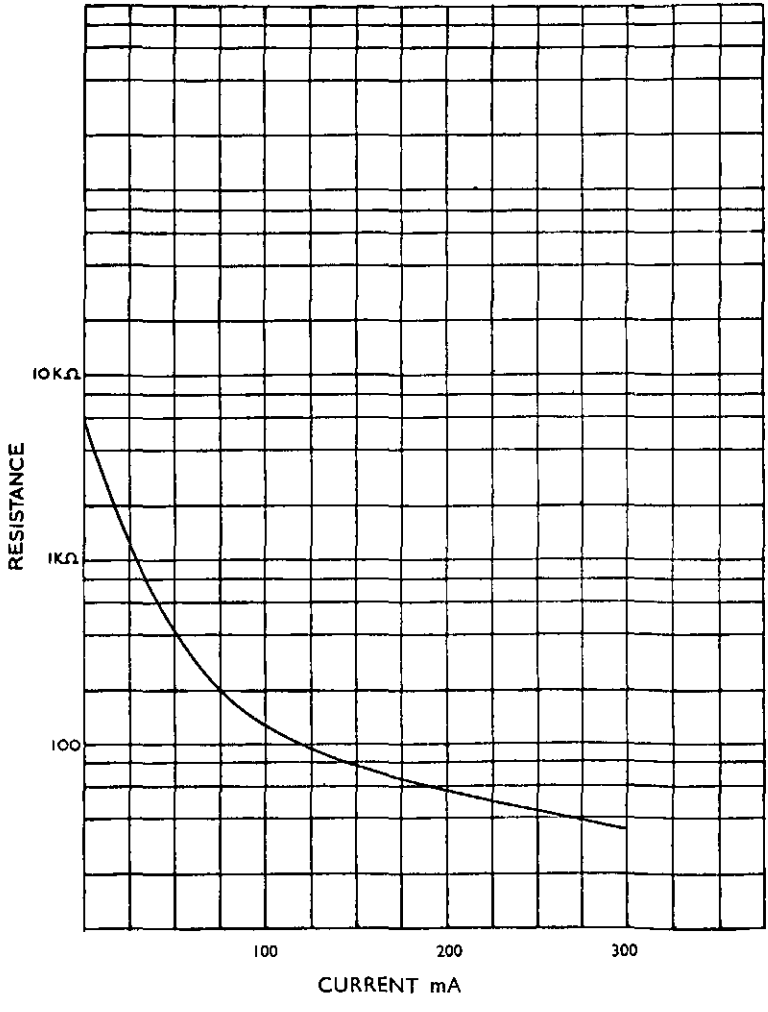


BRIMISTORS

Rod Type Thermistors

Type CZ2

RESISTANCE CURRENT CHARACTERISTIC (AT 20°C)

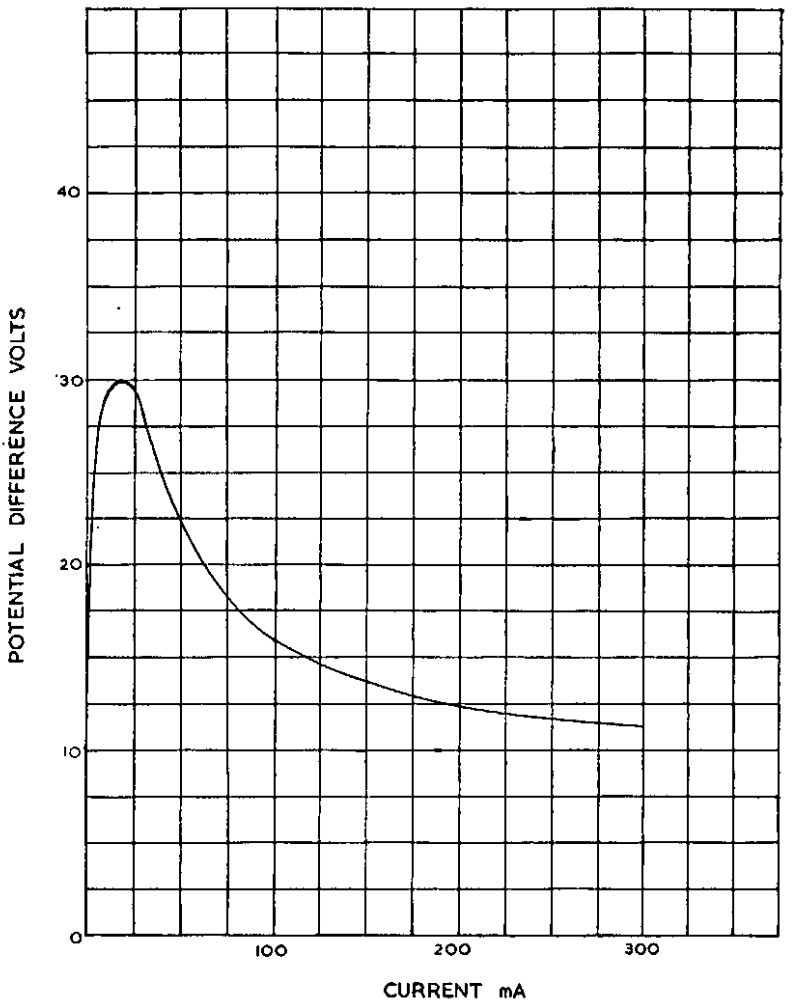


STC

Type CZ2

CONTINUED

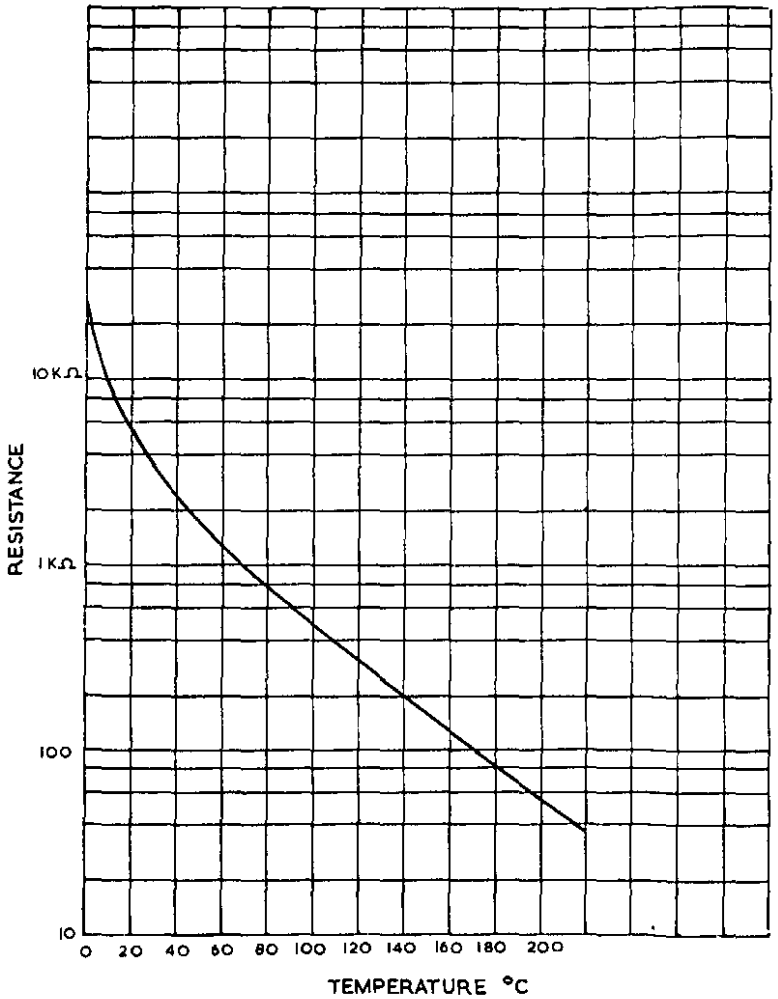
VOLTAGE CURRENT CHARACTERISTIC (AT 20°C)



Type CZ2

CONTINUED

RESISTANCE TEMPERATURE CHARACTERISTIC

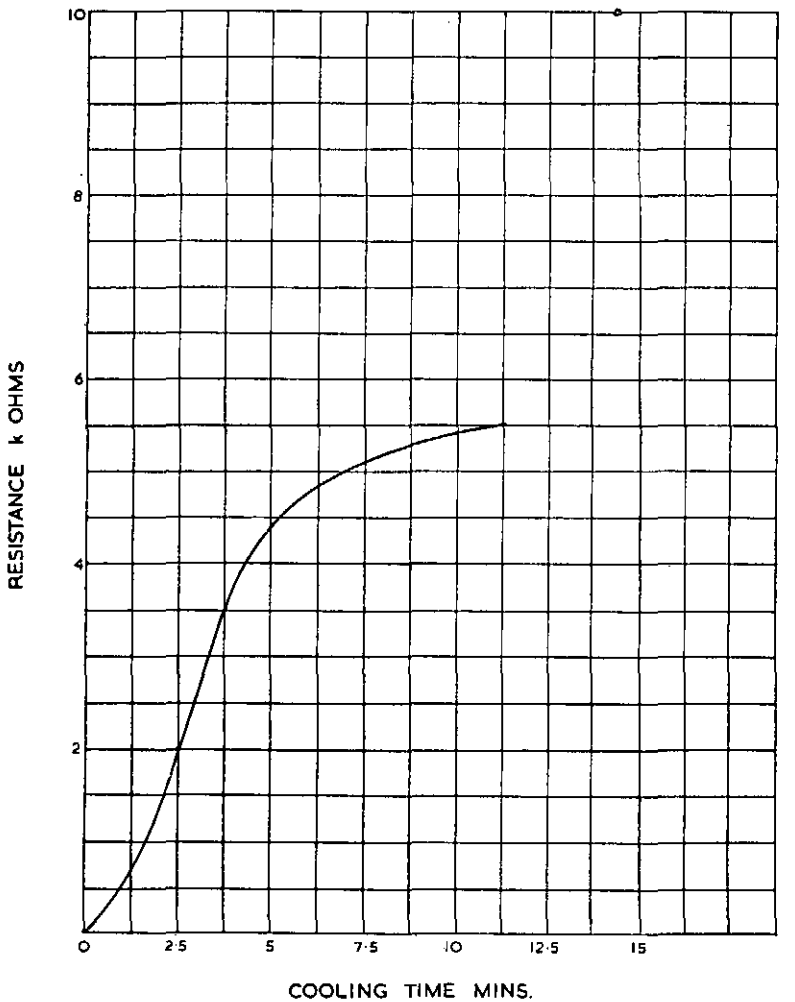


STC

Type CZ2

CONTINUED

COOLING CURVE FROM MAX. CURRENT

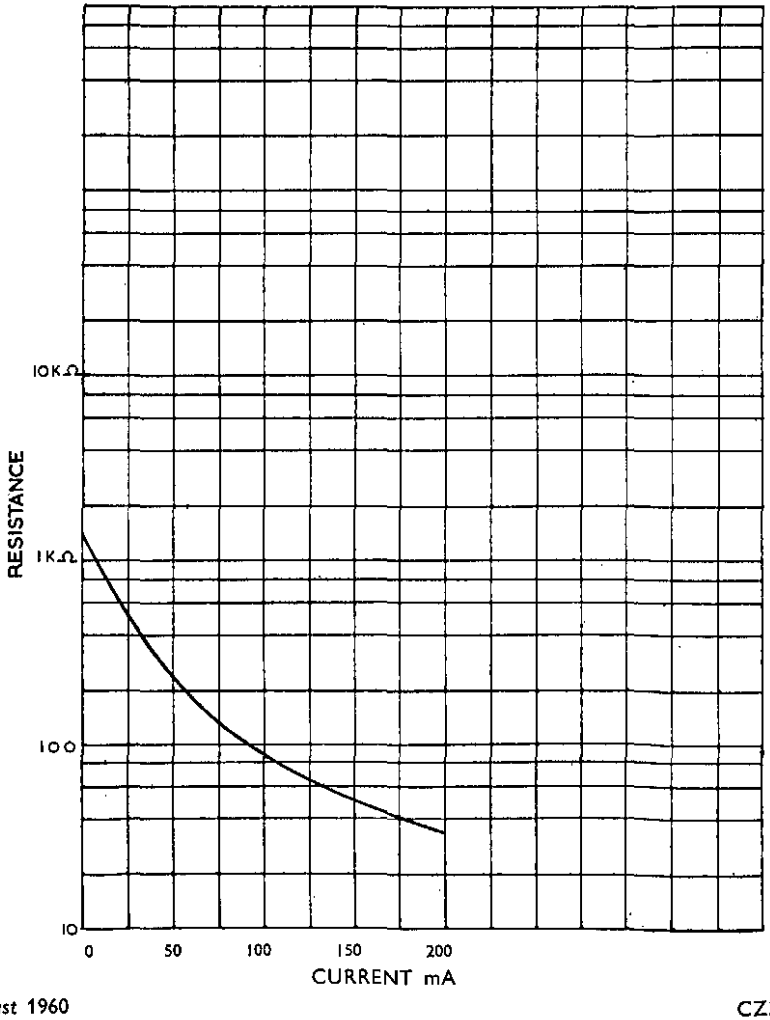


BRIMISTORS

Rod Type Thermistors

Type CZ3

RESISTANCE CURRENT CHARACTERISTIC (AT 20°C)

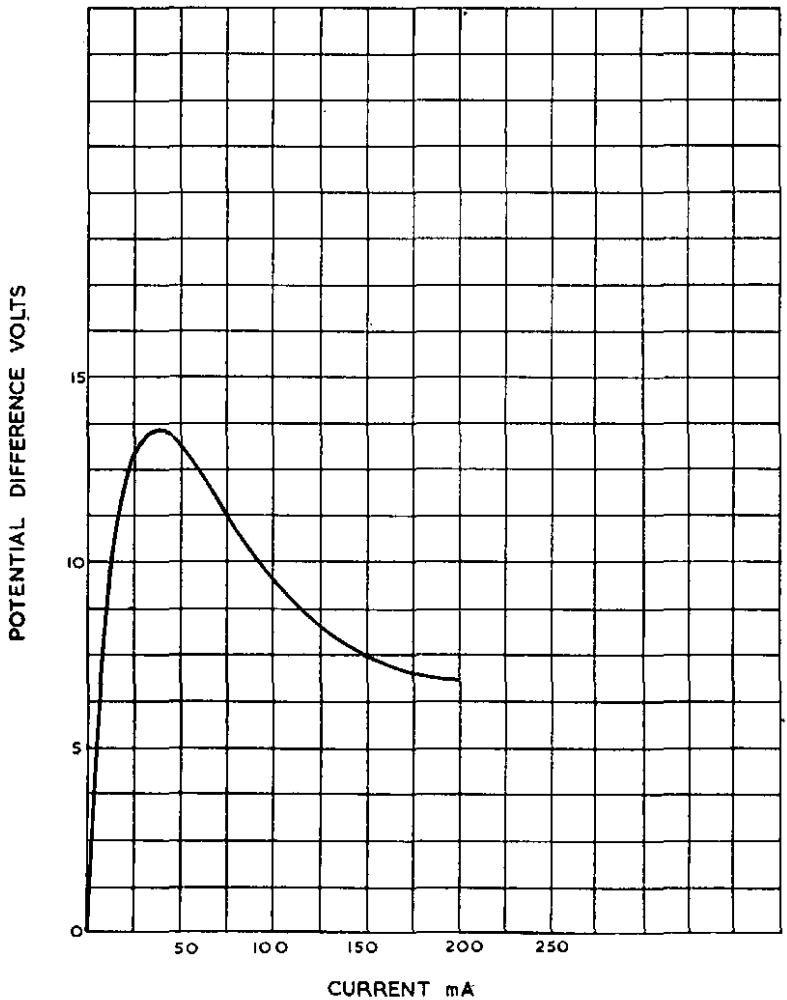


STC

Type CZ3

CONTINUED

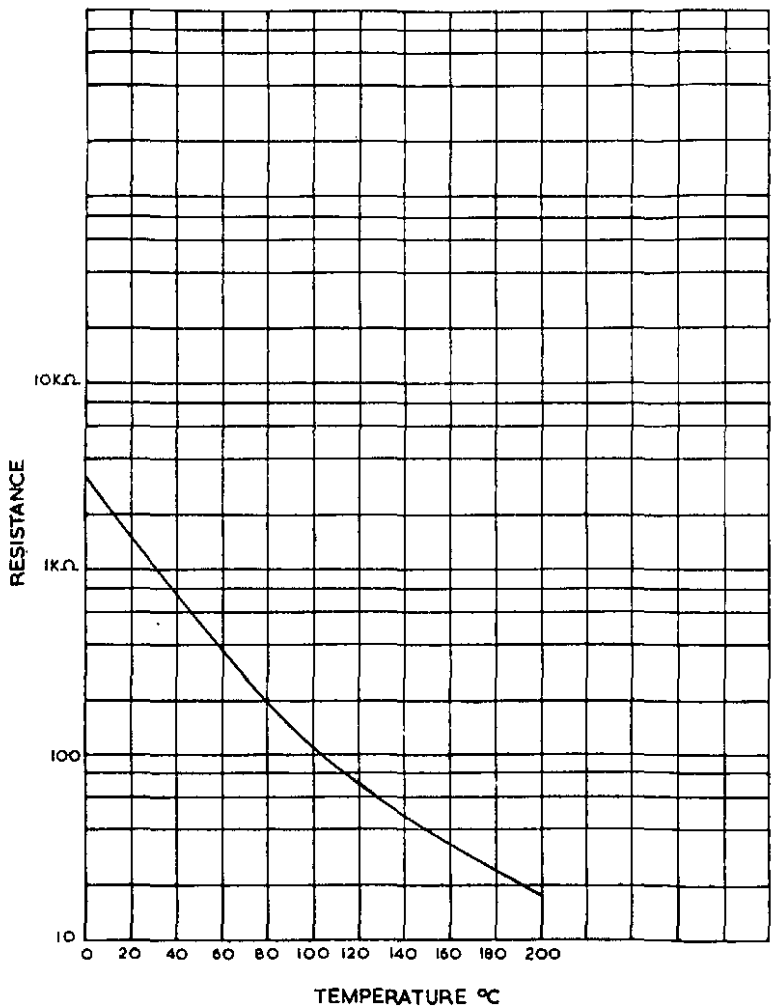
VOLTAGE CURRENT CHARACTERSTIC (AT 20°C)



Type CZ3

CONTINUED

RESISTANCE TEMPERATURE CHARACTERISTIC

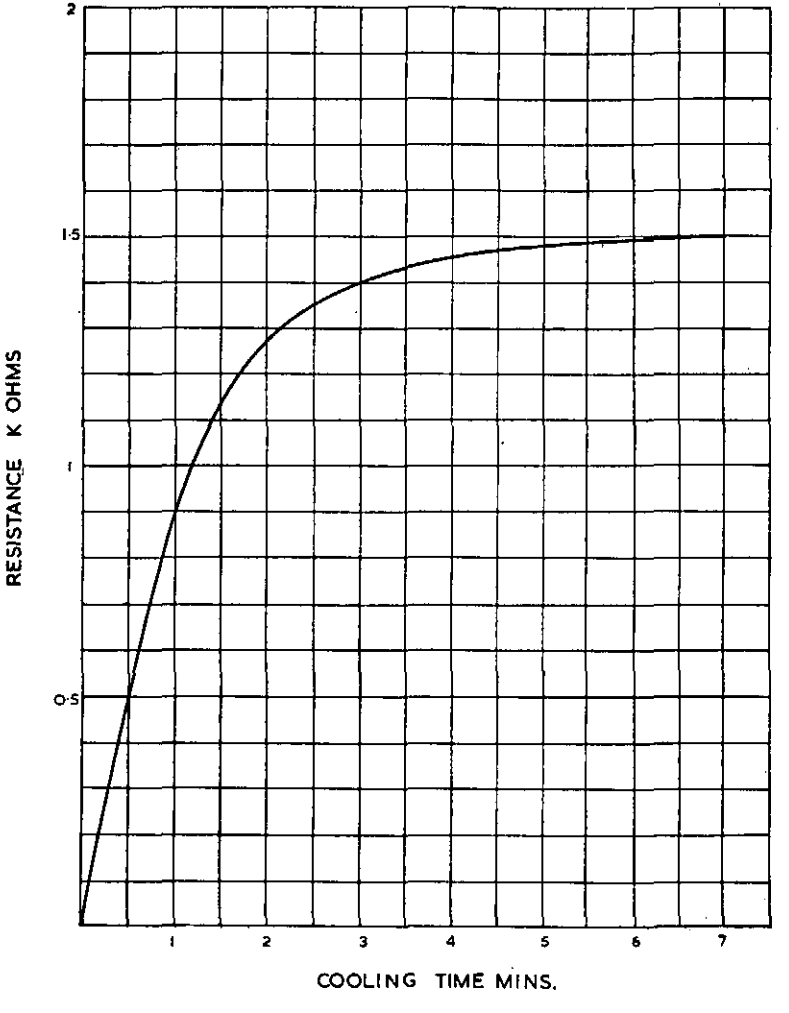


STC

Type CZ3

CONTINUED

COOLING CURVE FROM MAX. CURRENT

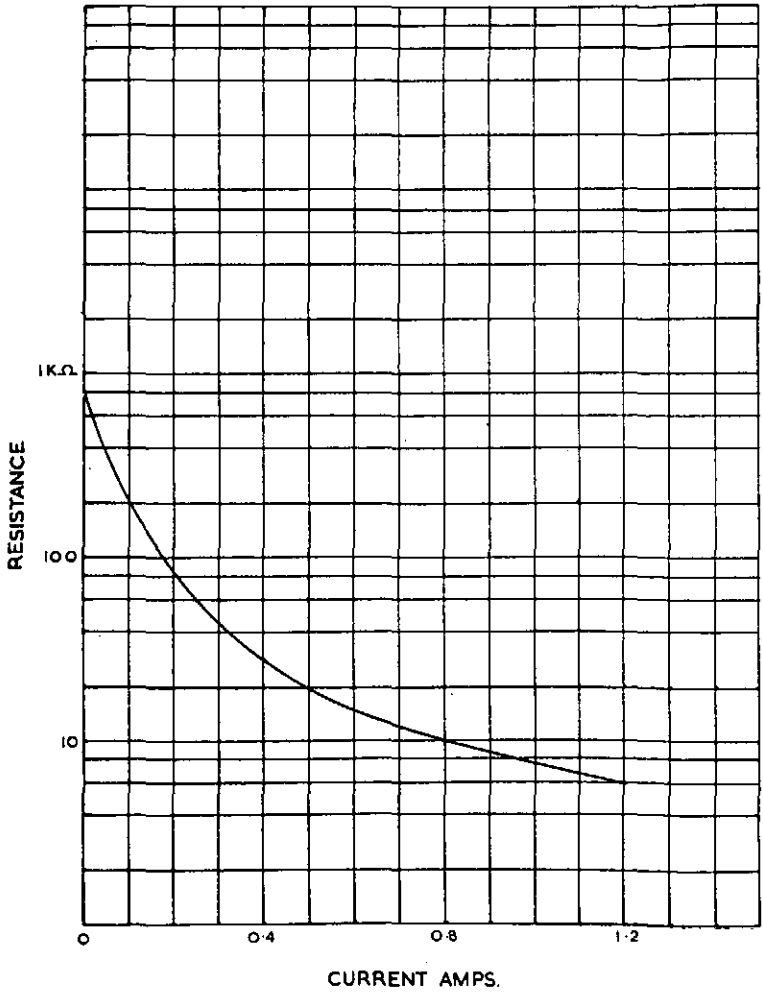


BRIMISTORS

Rod Type Thermistors

Types C4–CZ4–CZ4A

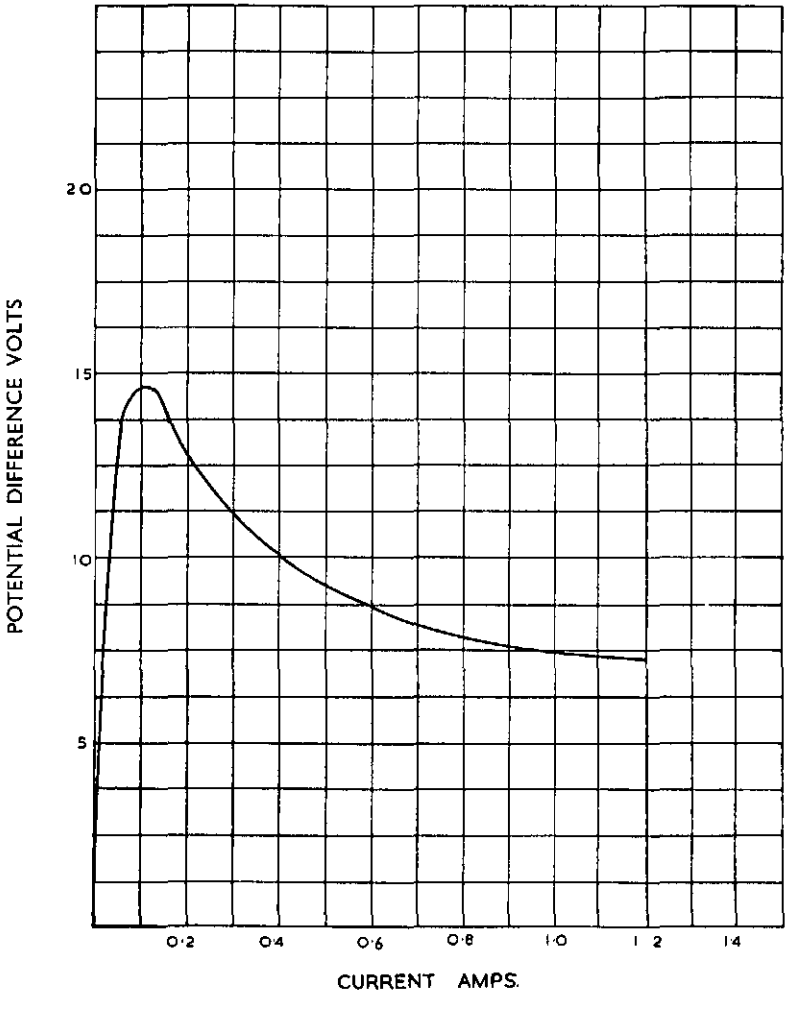
RESISTANCE CURRENT CHARACTERISTIC (AT 20°C)



Types C4—CZ4—CZ4A

CONTINUED

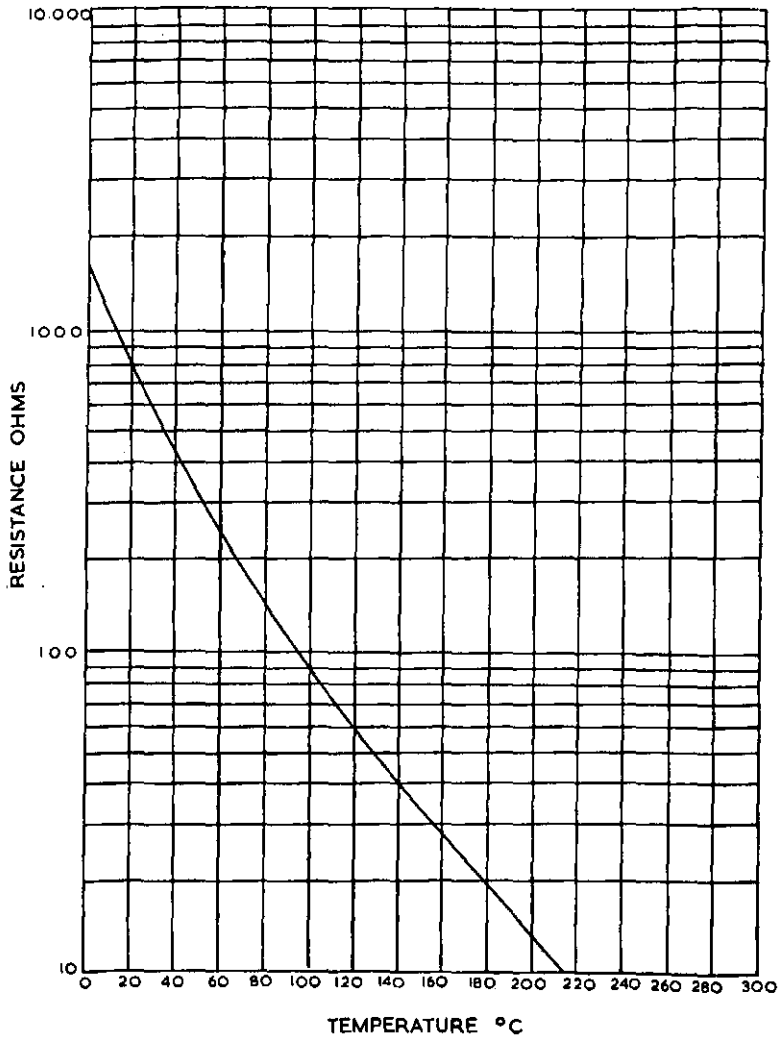
VOLTAGE CURRENT CHARACTERISTIC (AT 20°C)



Types C4—CZ4—CZ4A

CONTINUED

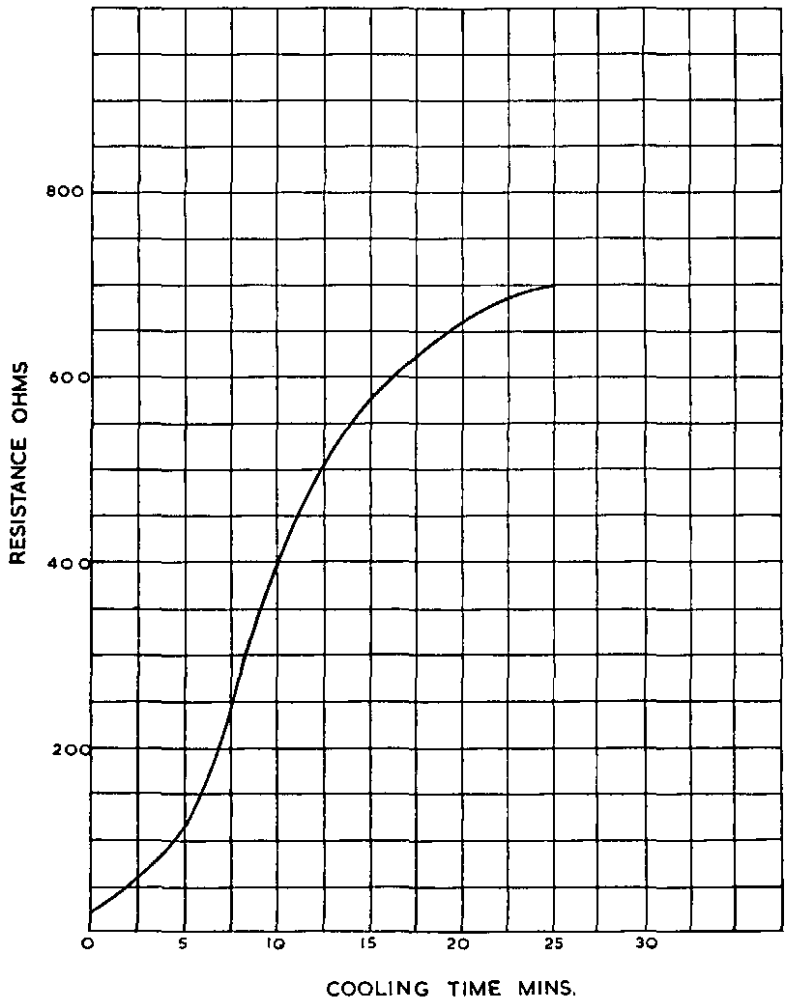
RESISTANCE TEMPERATURE CHARACTERISTIC



Types C4—CZ4—CZ4A

CONTINUED

COOLING CURVE FROM MAX. CURRENT

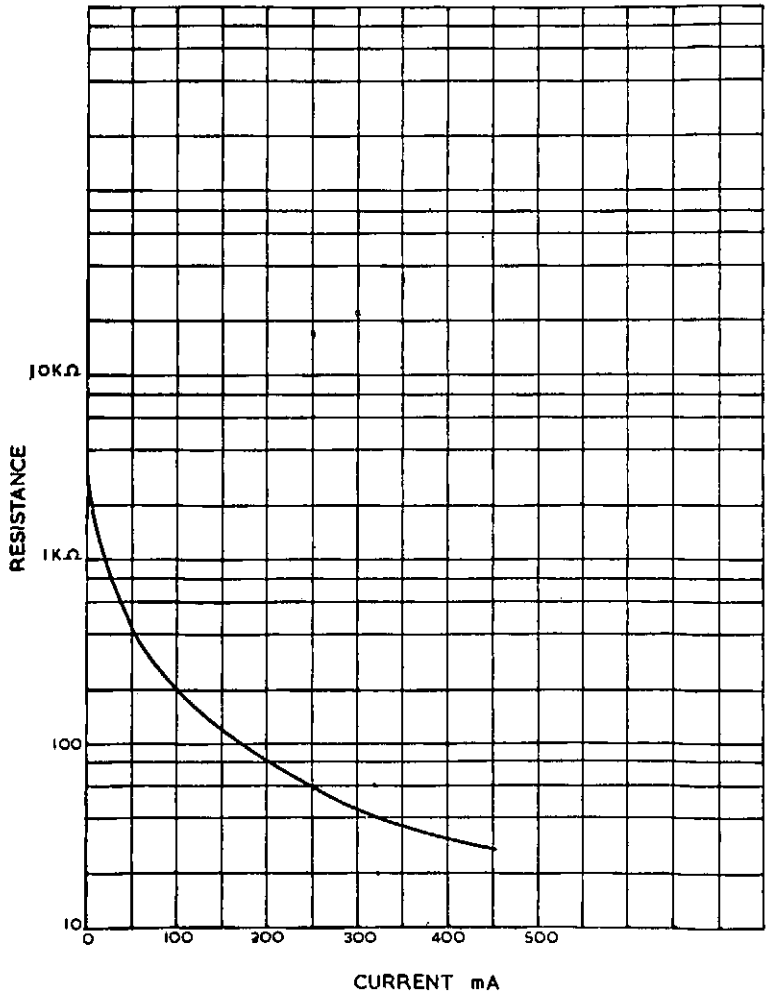


BRIMISTORS

Rod Type Thermistors

Type CZ6

RESISTANCE CURRENT CHARACTERISTIC (AT 20°C)

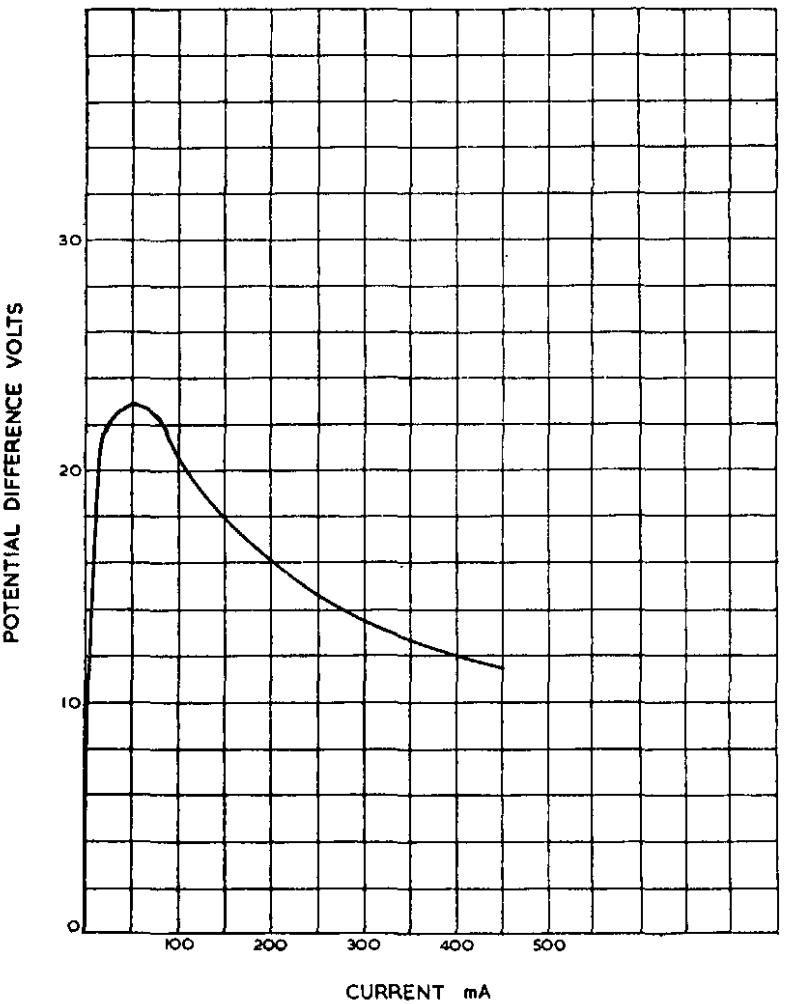


STC

Type CZ6

CONTINUED

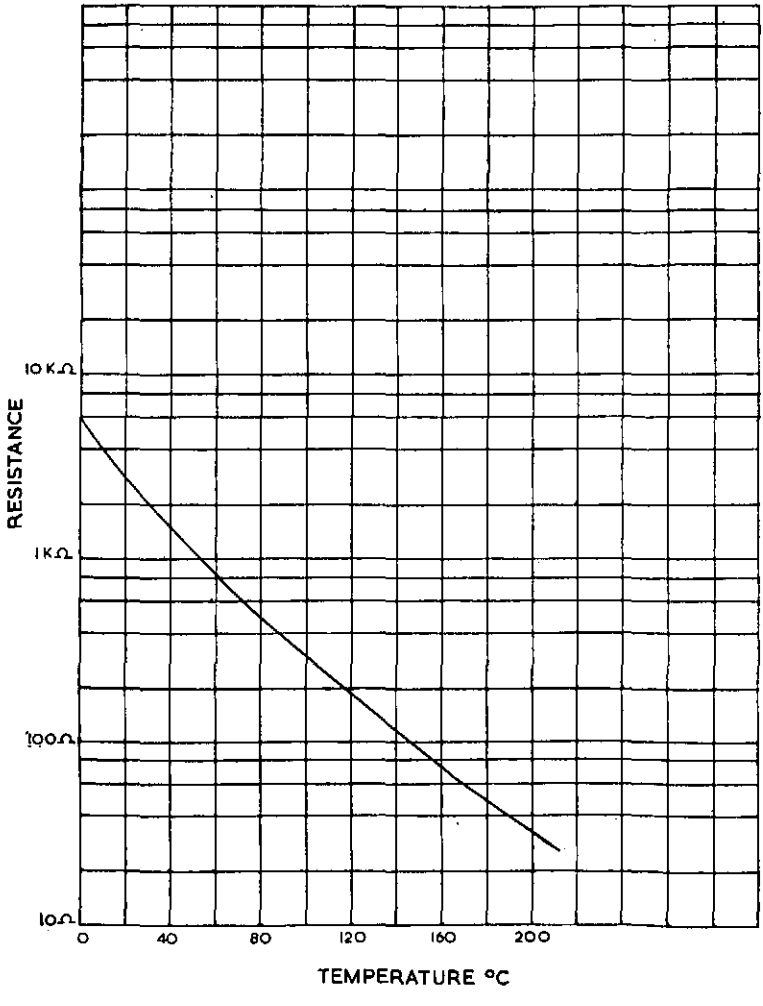
VOLTAGE CURRENT CHARACTERISTIC (AT 20°C)



Type CZ6

CONTINUED

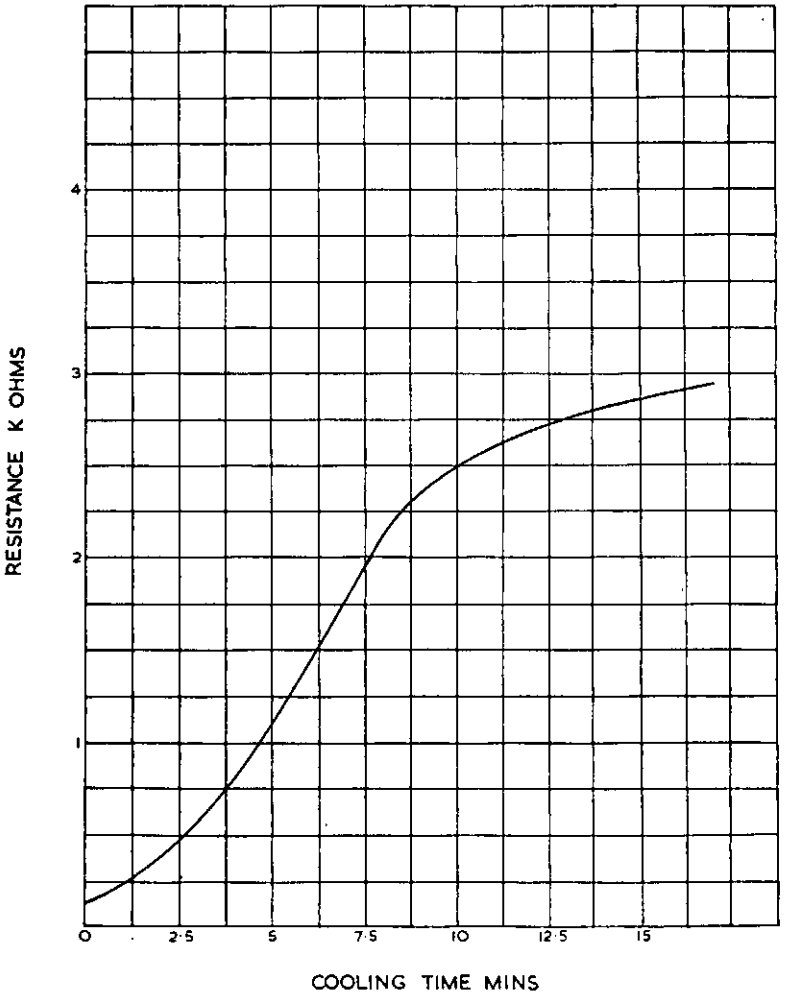
RESISTANCE TEMPERATURE CHARACTERISTIC



Type CZ6

CONTINUED

COOLING CURVE FROM MAX. CURRENT

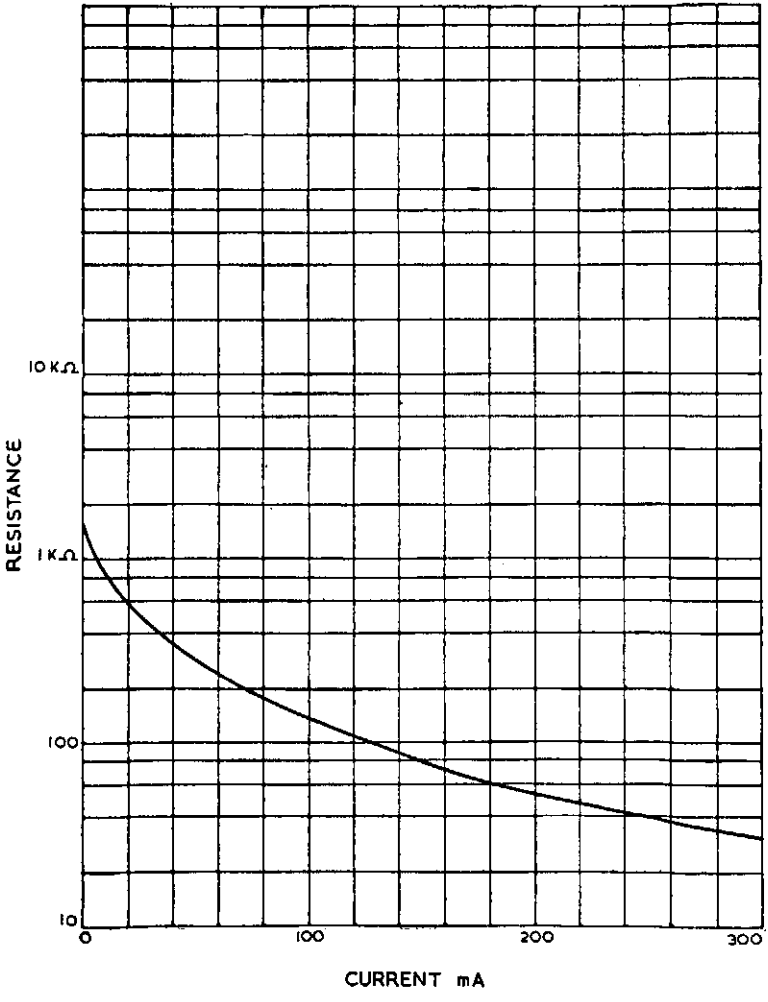


BRIMISTORS

Rod Type Thermistors

Type CZ8A

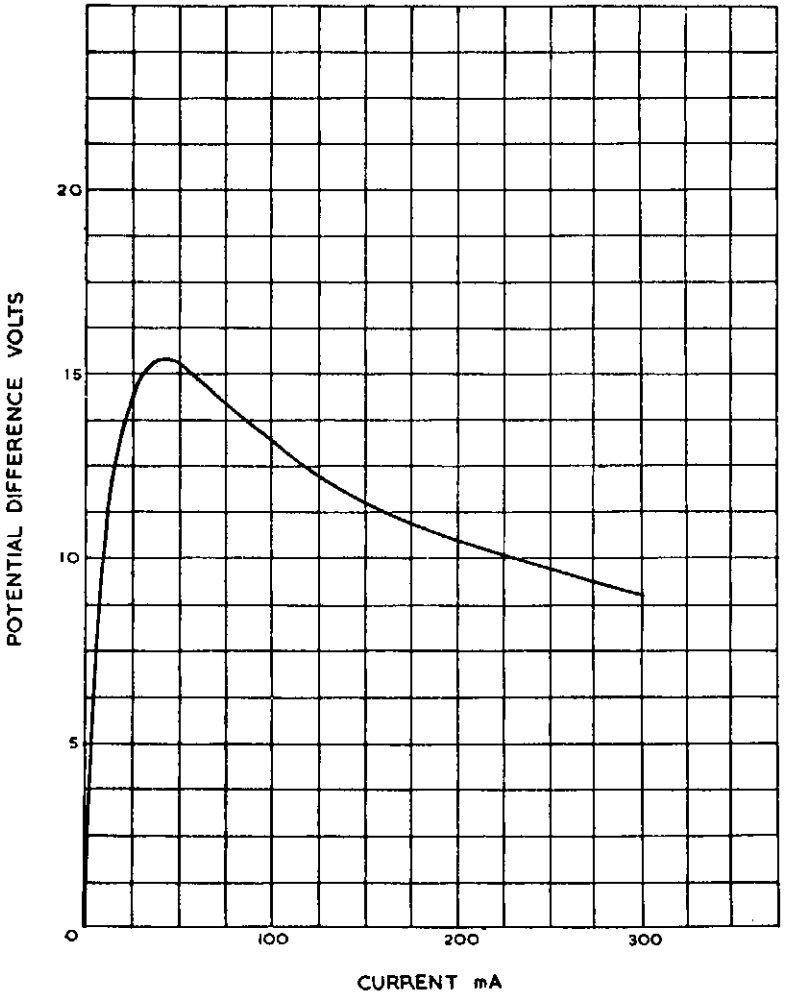
RESISTANCE CURRENT CHARACTERISTIC (AT 20°C)



Type CZ8A

CONTINUED

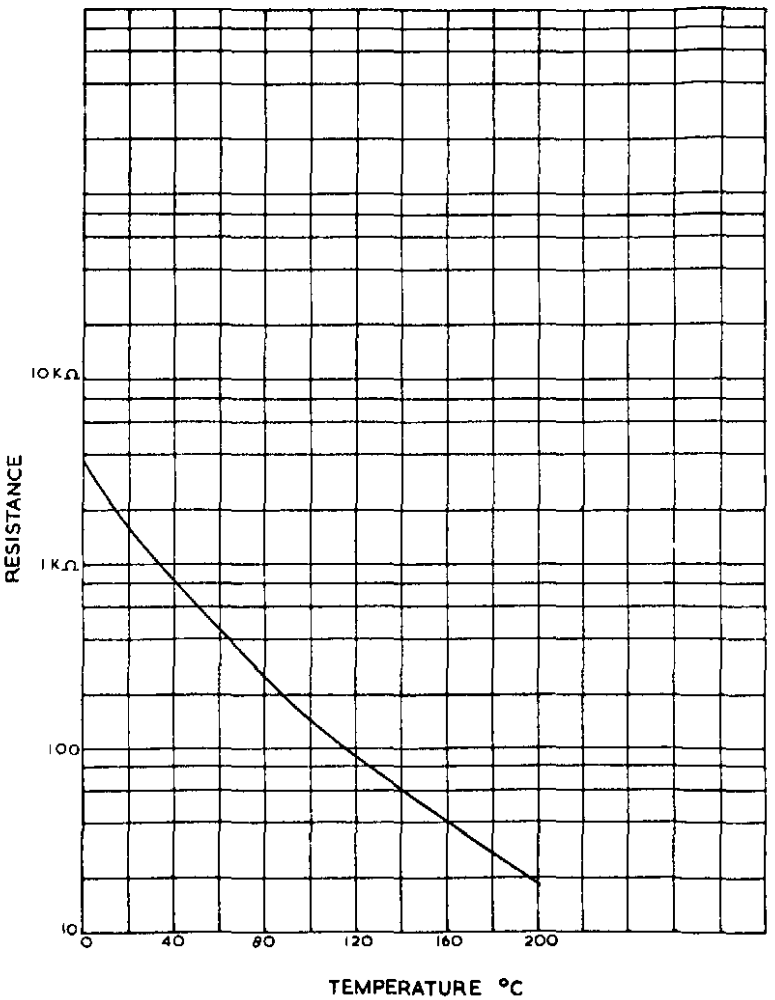
VOLTAGE CURRENT CHARACTERISTIC (AT 20°C)



Type CZ8A

CONTINUED

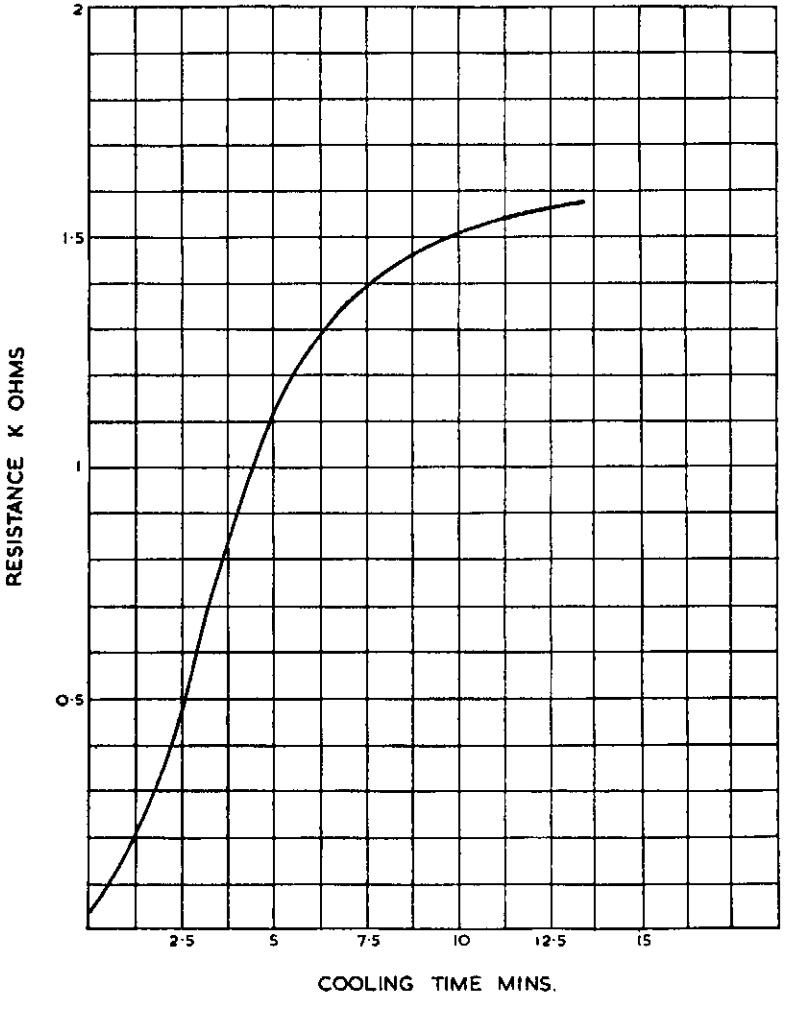
RESISTANCE TEMPERATURE CHARACTERISTIC



Type CZ8A

CONTINUED

COOLING CURVE FROM MAX. CURRENT

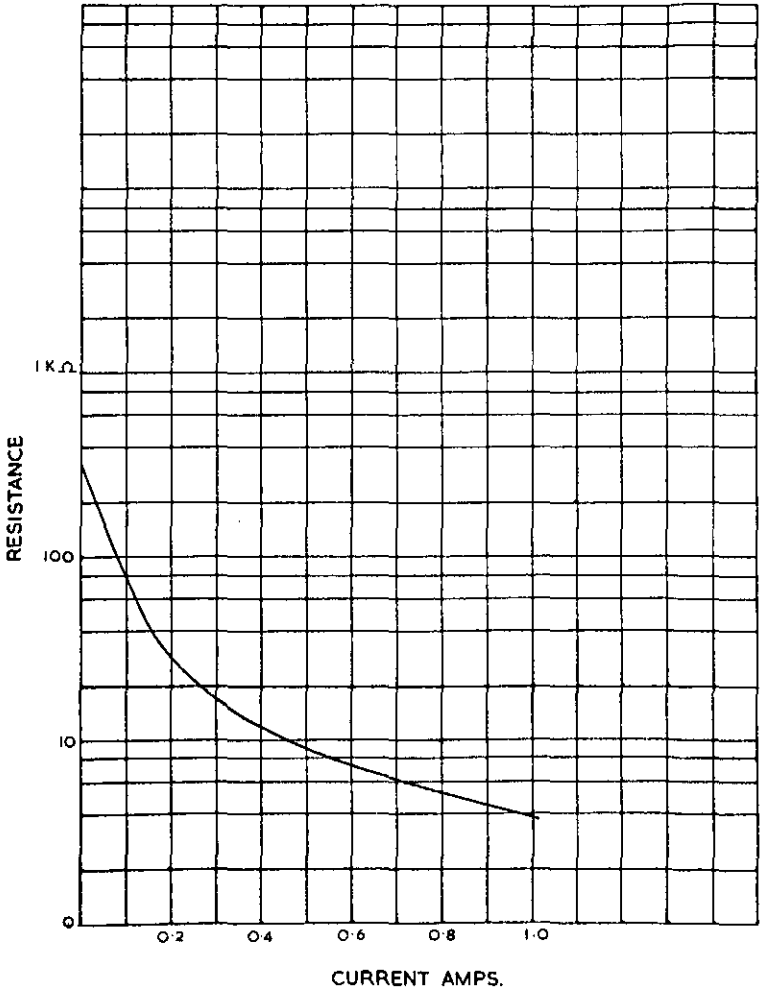


BRIMISTORS

Rod Type Thermistors

Type CZ9A

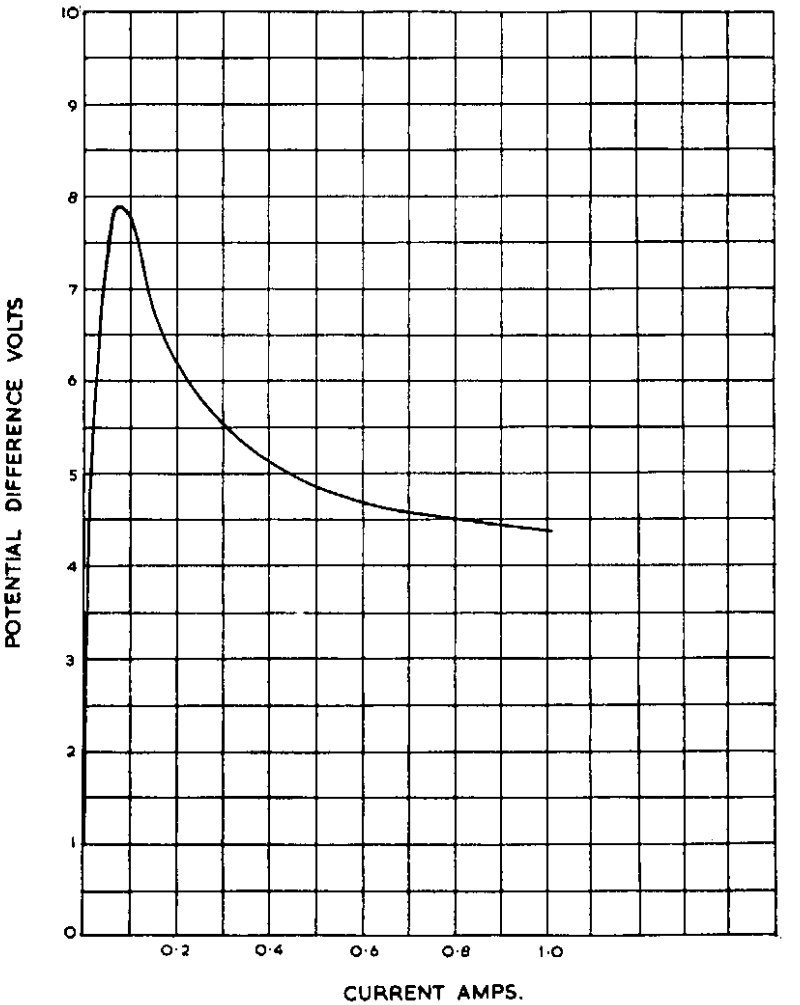
RESISTANCE CURRENT CHARACTERISTIC (AT 20°C)



Type CZ9A

CONTINUED

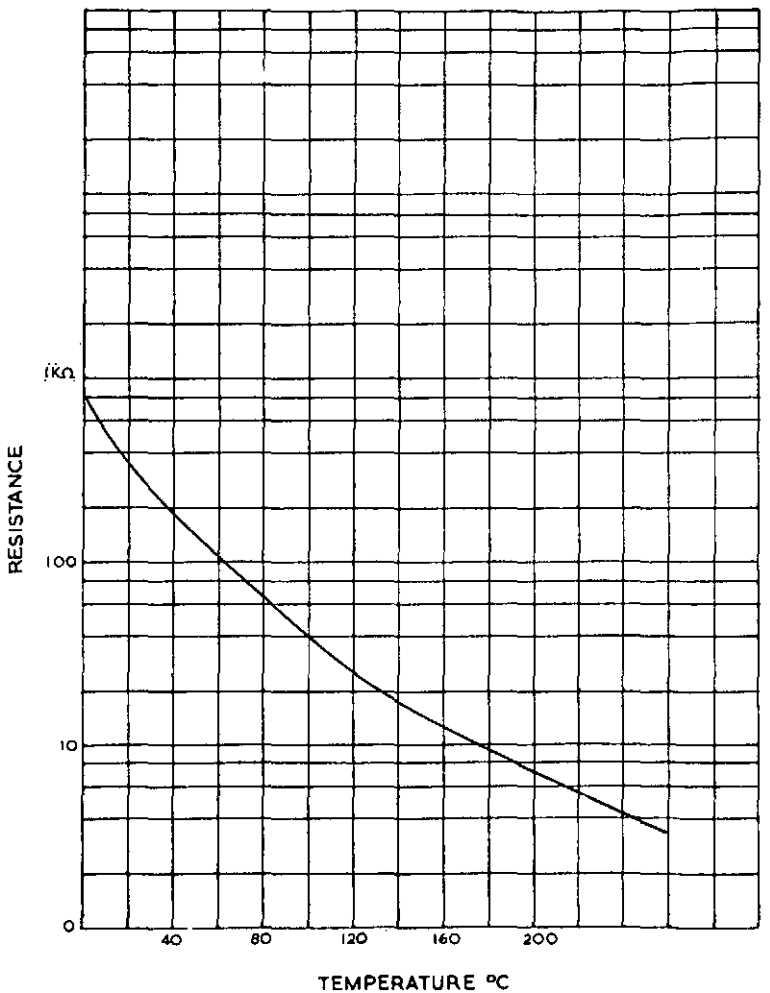
VOLTAGE CURRENT CHARACTERISTIC (AT 20°C)



Type CZ9A

CONTINUED

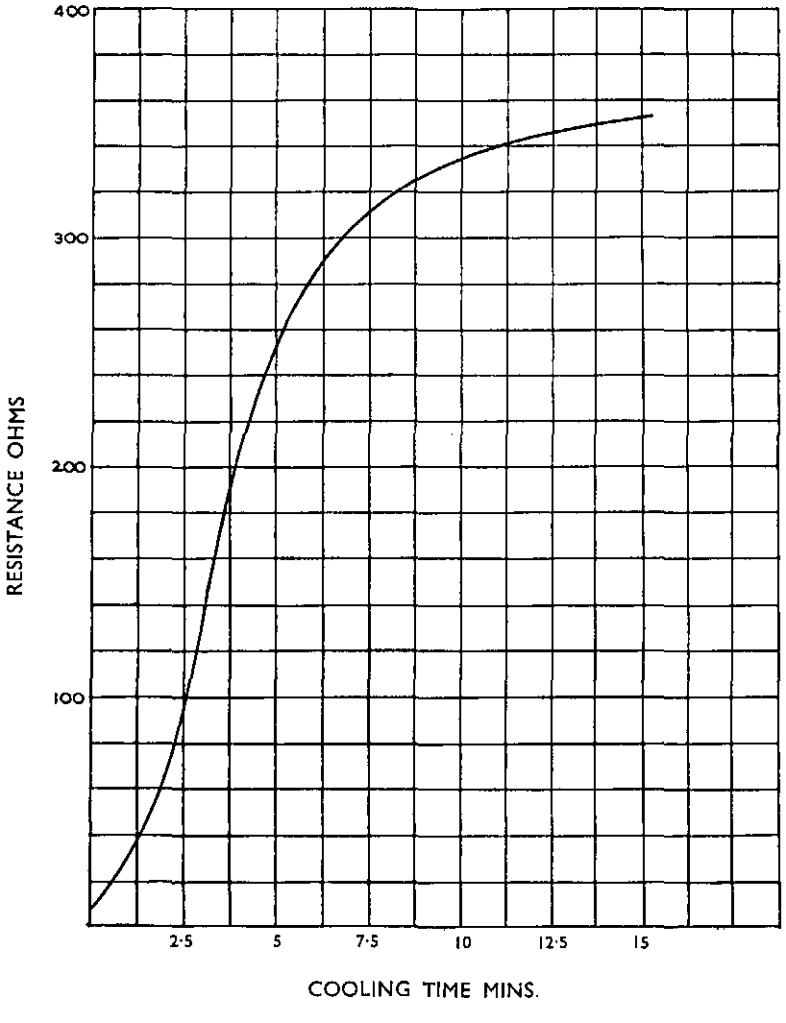
RESISTANCE TEMPERATURE CHARACTERISTIC



Type CZ9A

CONTINUED

COOLING CURVE FROM MAX. CURRENT

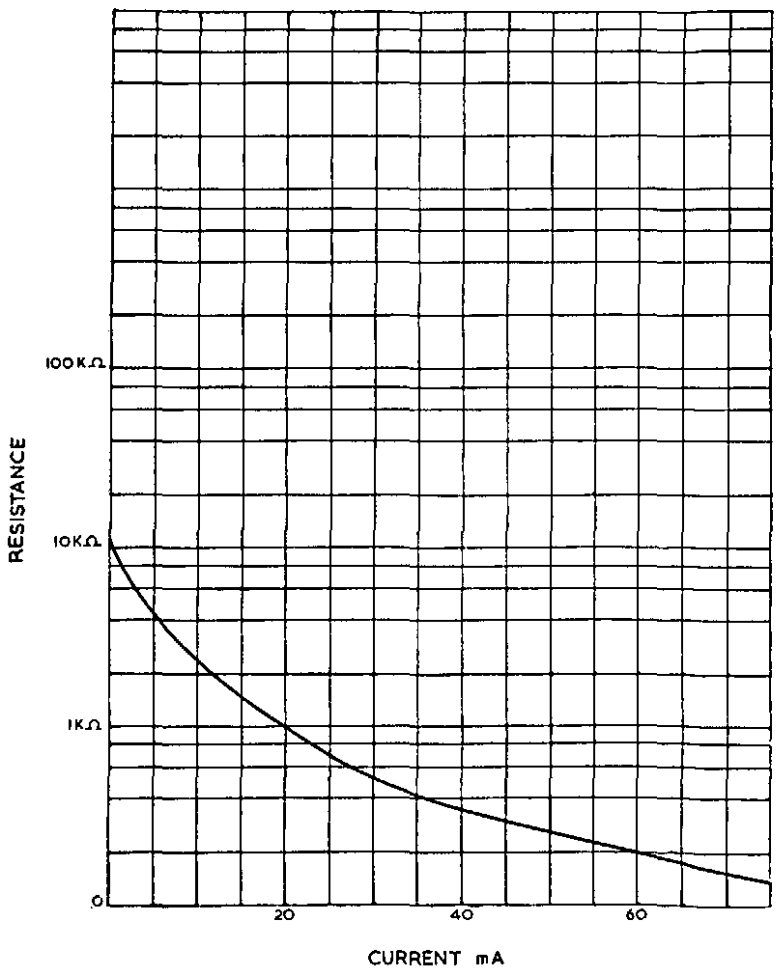


BRIMISTORS

Rod Type Thermistors

Type CZ10

RESISTANCE CURRENT CHARACTERISTIC (AT 20°C)

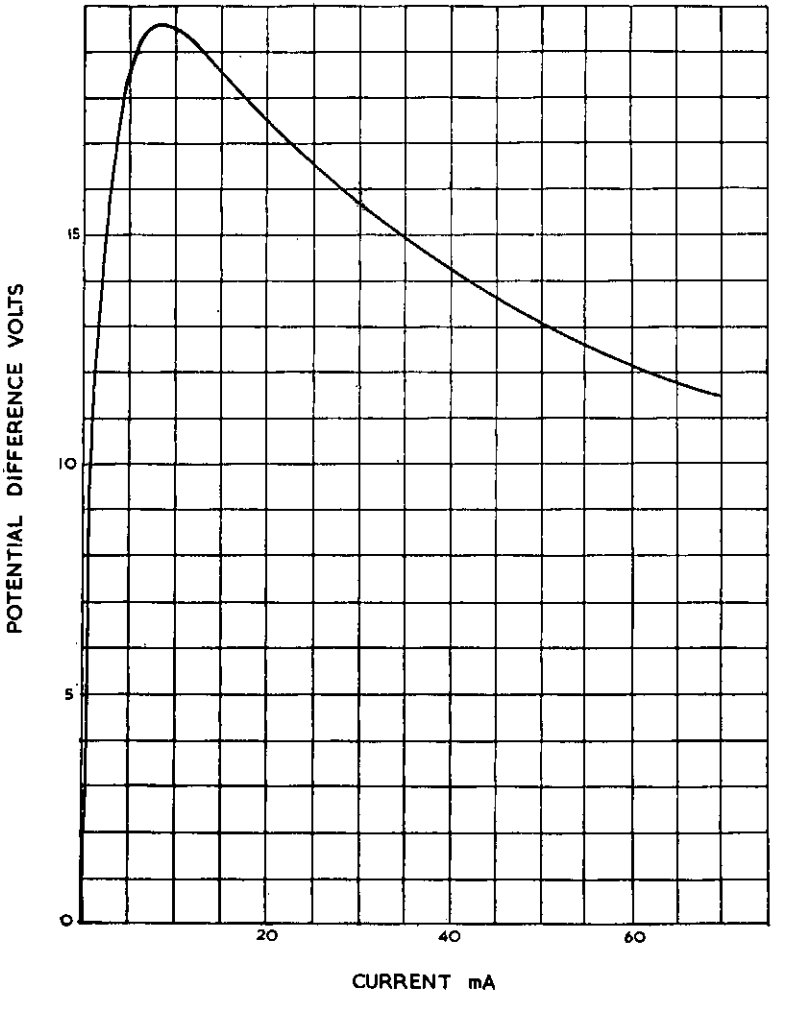


STC

Type CZ10

CONTINUED

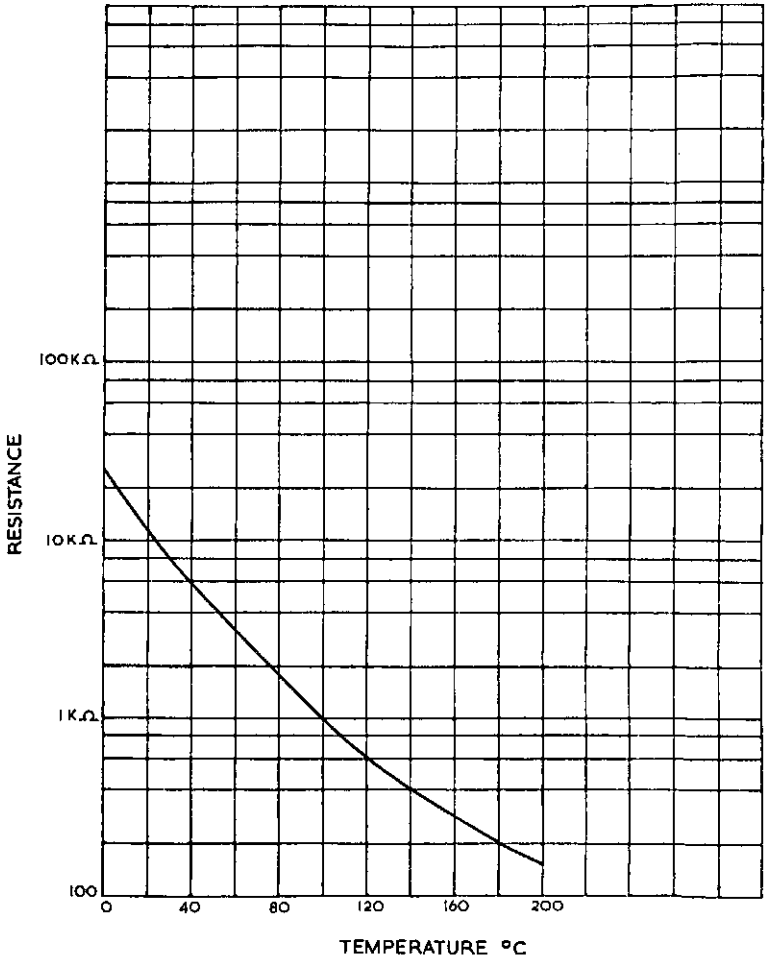
VOLTAGE CURRENT CHARACTERISTIC (AT 20°C)



Type CZ10

CONTINUED

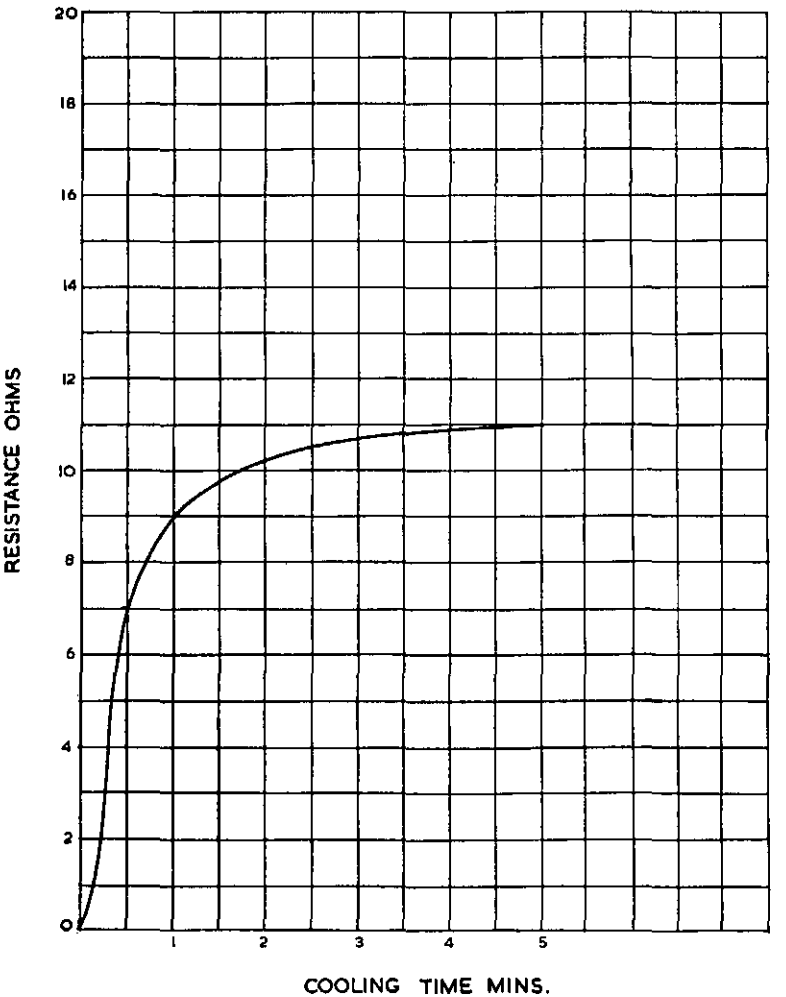
RESISTANCE TEMPERATURE CHARACTERISTIC



Type CZ10

CONTINUED

COOLING CURVE FROM MAX. CURRENT

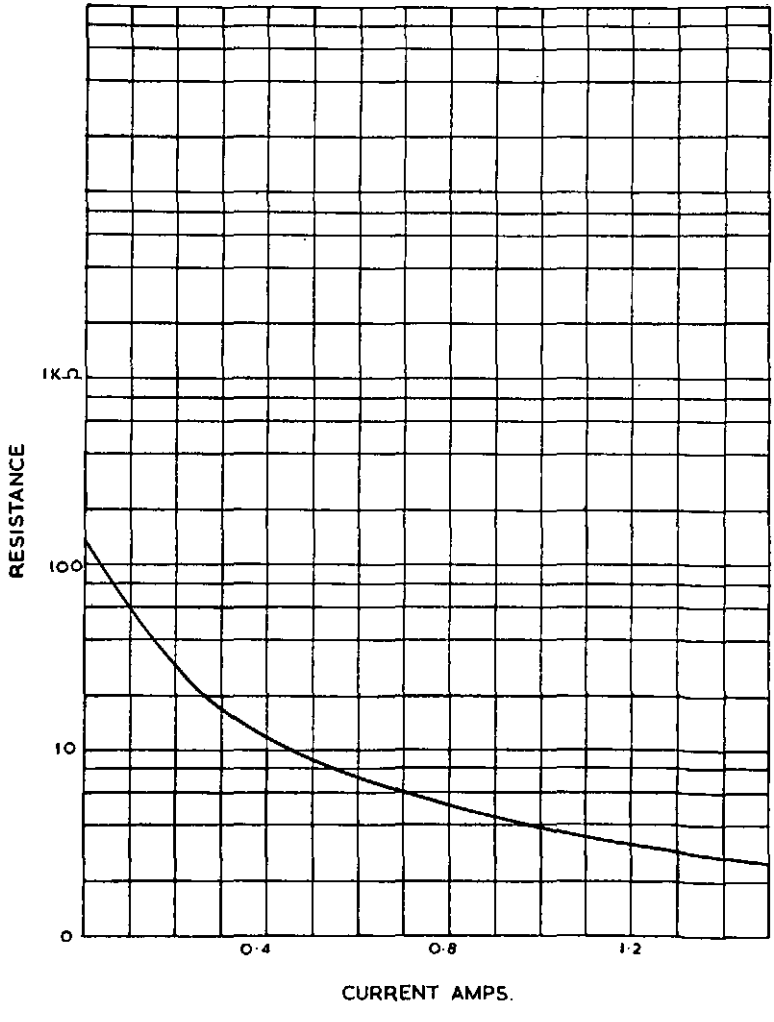


BRIMISTORS

Rod Type Thermistors

Type CZ11

RESISTANCE CURRENT CHARACTERISTIC (AT 20°C)

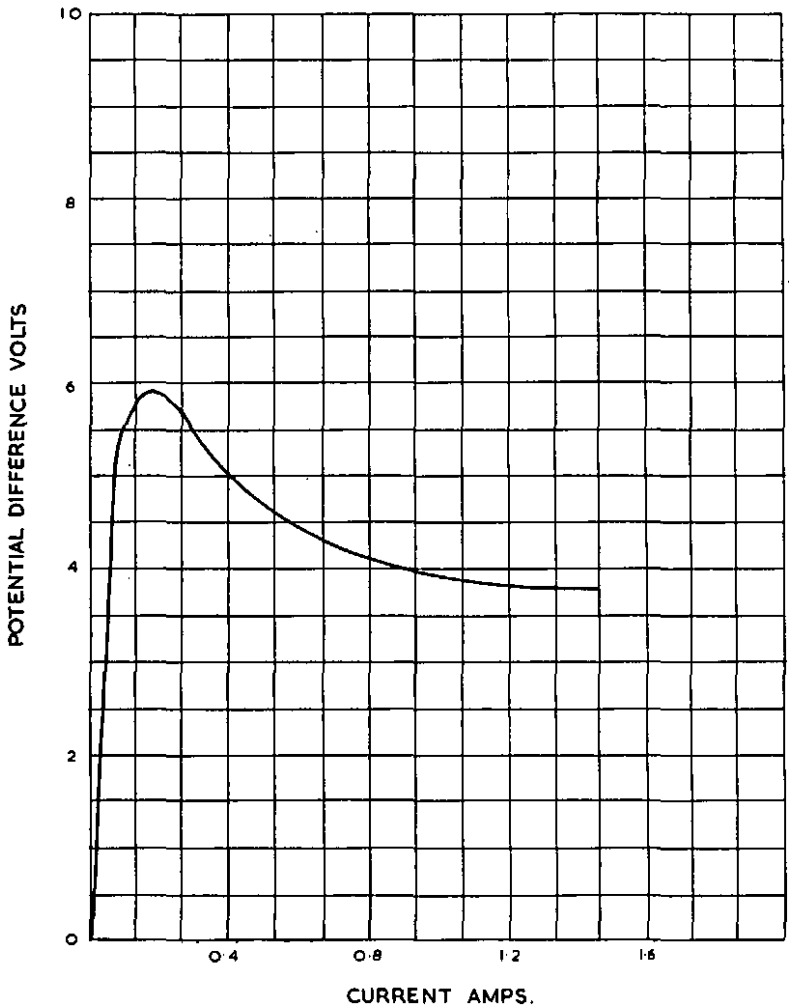


STC

Type CZ11

CONTINUED

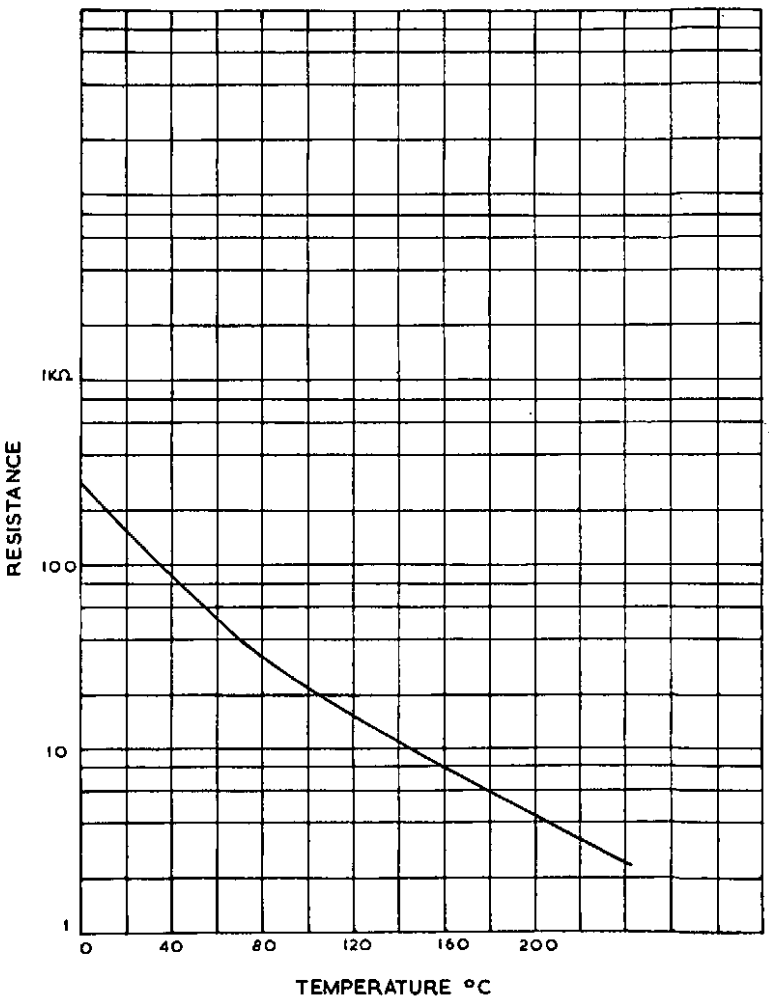
VOLTAGE CURRENT CHARACTERISTIC (AT 20°C)



Type CZ11

CONTINUED

RESISTANCE TEMPERATURE CHARACTERISTIC

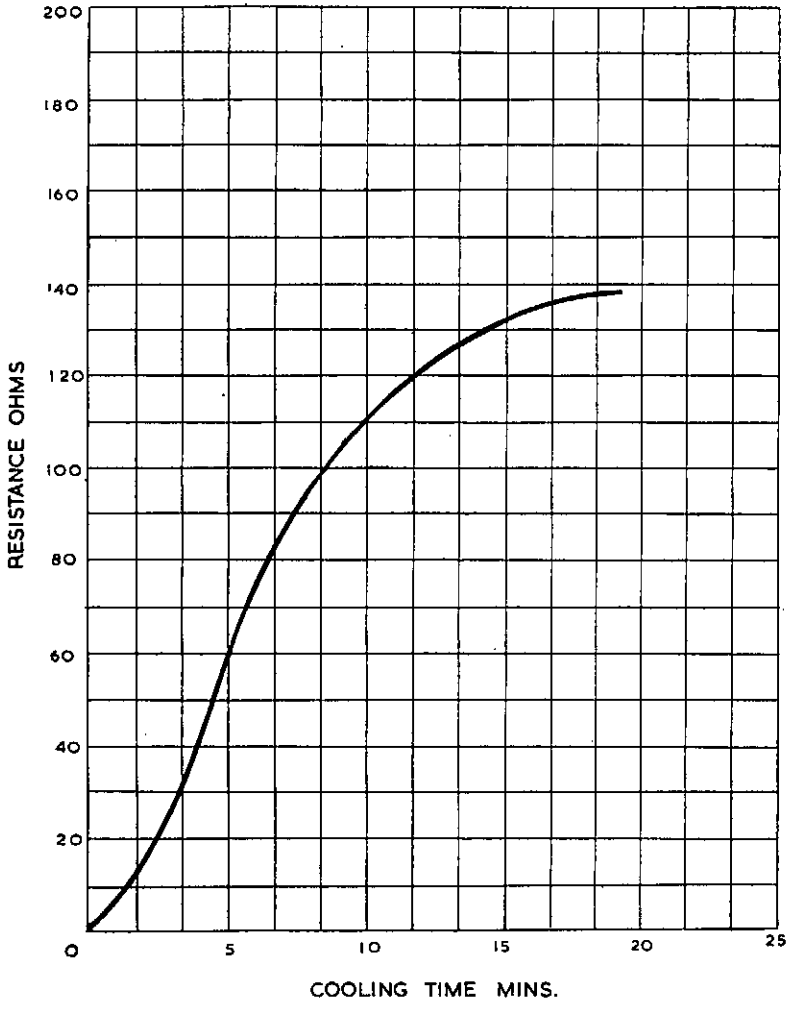


STC

Type CZ11

CONTINUED

COOLING CURVE FROM MAX. CURRENT

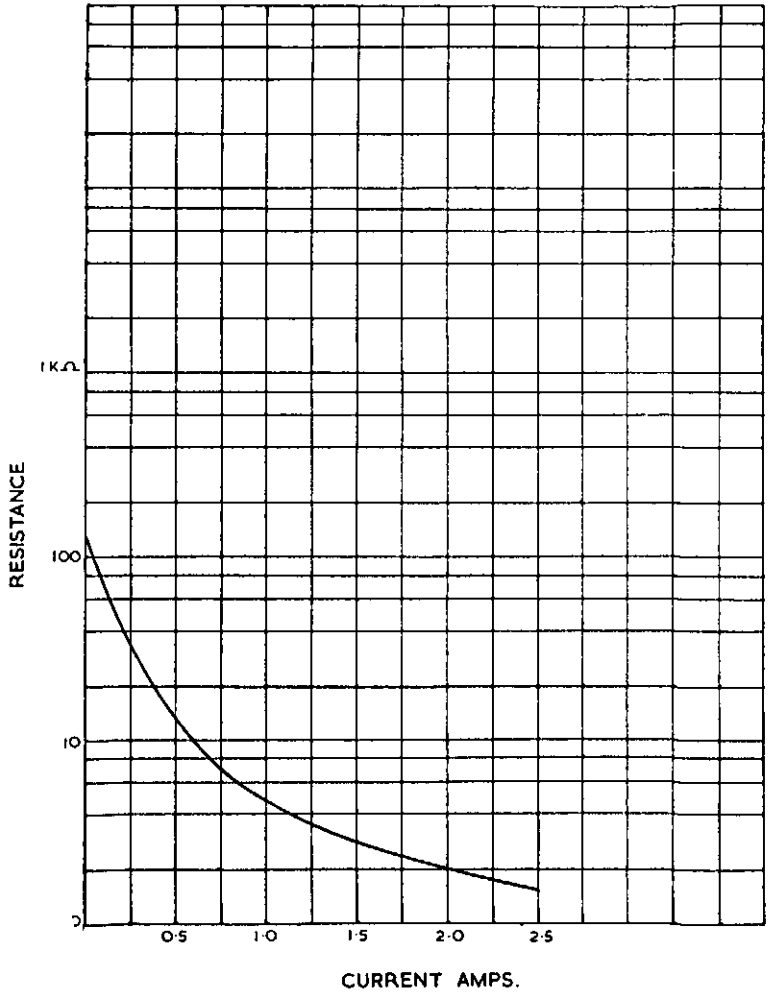


BRIMISTORS

Rod Type Thermistors

Type CZ12

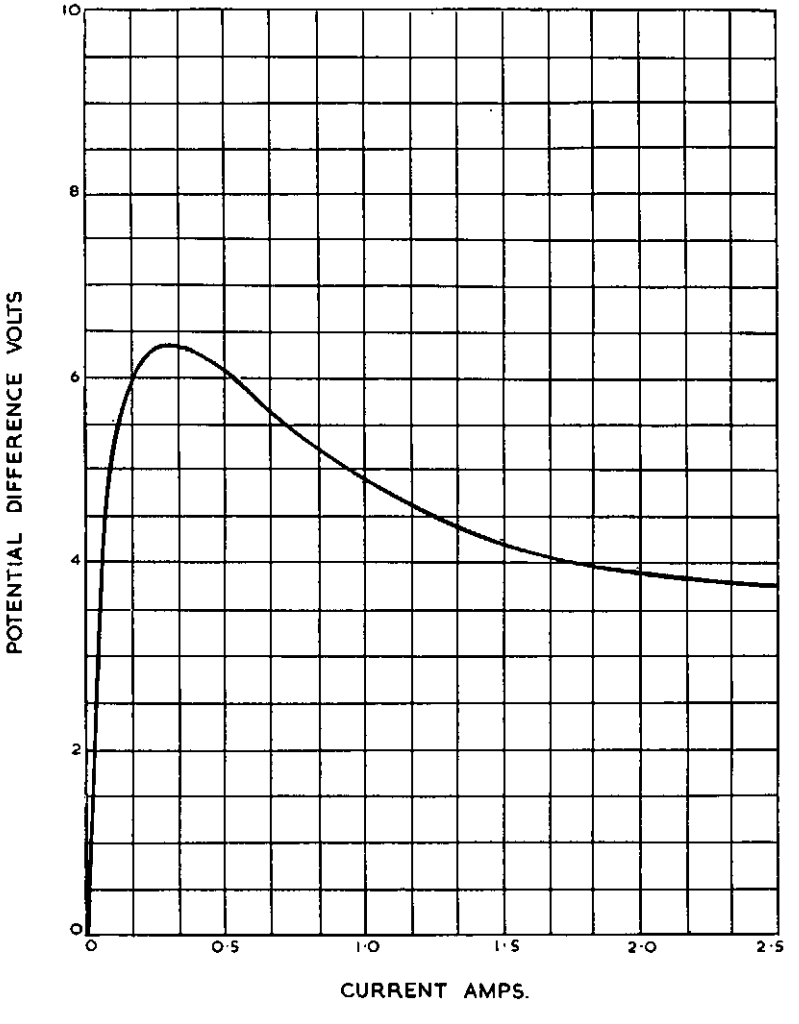
RESISTANCE CURRENT CHARACTERISTIC (AT 20°C)



Type CZ12

CONTINUED

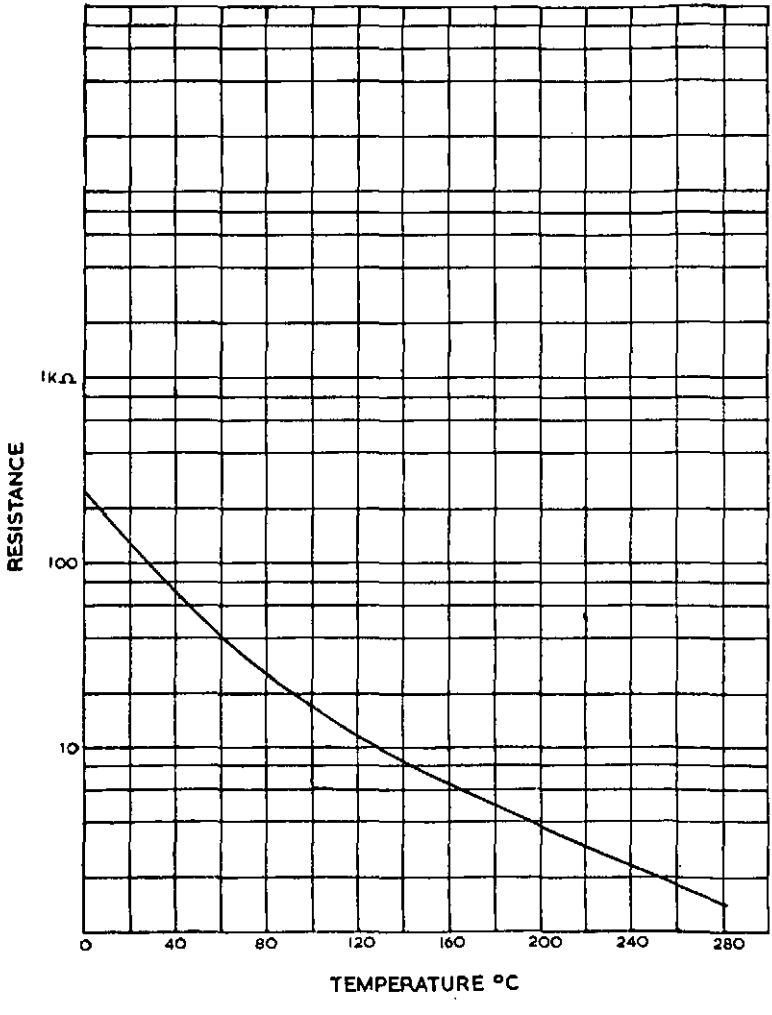
VOLTAGE CURRENT CHARACTERISTIC (AT 20°C)



Type CZ12

CONTINUED

RESISTANCE TEMPERATURE CHARACTERISTIC

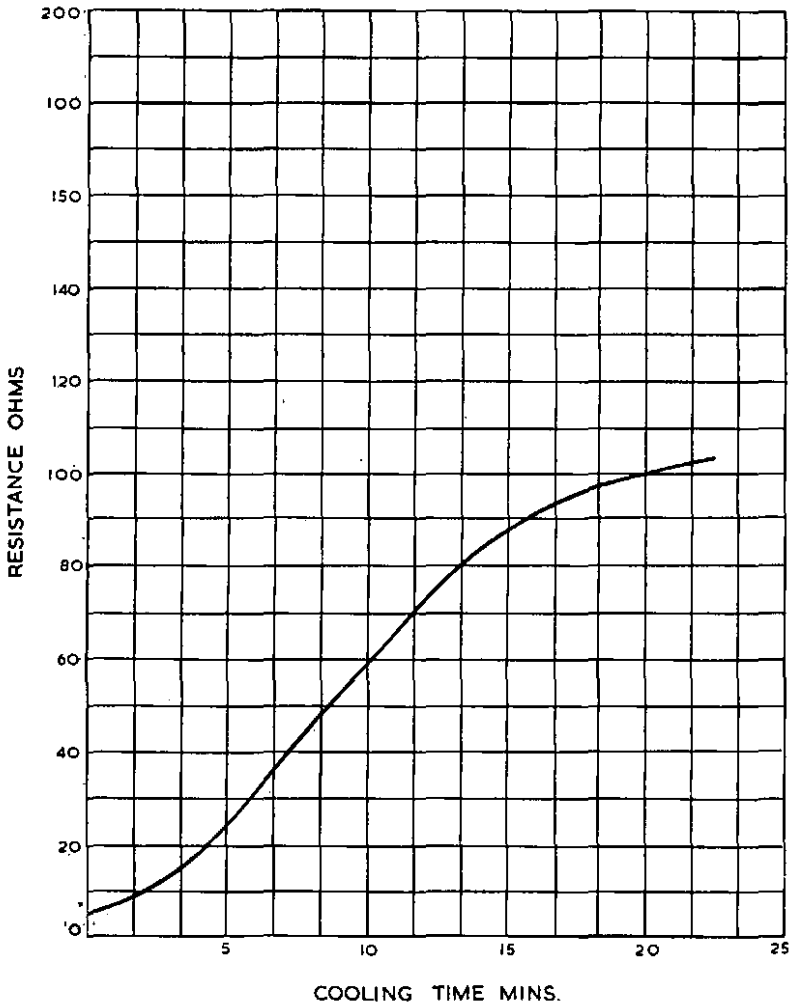


STC

Type CZ12

CONTINUED

COOLING CURVE FROM MAX. CURRENT



SILISTORS

(Silicon Resistors)

Type 502K

Silistors have a POSITIVE resistance/temperature coefficient.

The law governing the variation of their resistance with temperature is approximately:

$$R = R_{25}\left\{\frac{273 + T}{298}\right\}^{2\cdot3}$$

where T = temperature in °C
R_{25} = resistance at 25°C

Departure of the order of 5 per cent from this law may occur at temperatures above 140°C.

The law governing the variation of their resistance with power dissipation (measured in air in a "black box" of 1 foot cube) is approximately:

$$\frac{R}{R_0} = 1 + 0.7P$$

where R_0 = resistance with zero power dissipation.
P = power (in watts) dissipated in the Silicon Resistor.

CHARACTERISTICS

Temperature coefficient	0.77%/°C at 25°C
Incremental dissipation constant (dP/dT) (measured in air in 1 ft.³ black box)	11 mW/°C
Resistance range ... ... (in standard logarithmic series, to 10 per cent and 20 per cent tolerances)	10Ω to 680Ω

RATINGS

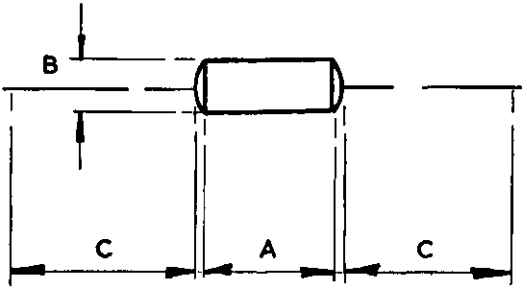
Maximum operating temperature	150°C
Minimum operating temperature	−60°C
Maximum dissipation up to 35°C	1.5 watts

Standard Telephones and Cables Limited
Semiconductor Division (Transistors), Footscray, Sidcup, Kent
Telephone: Footscray 3333 Telex: 21836
C O M P O N E N T S G R O U P

STC

Type 502K

CONTINUED



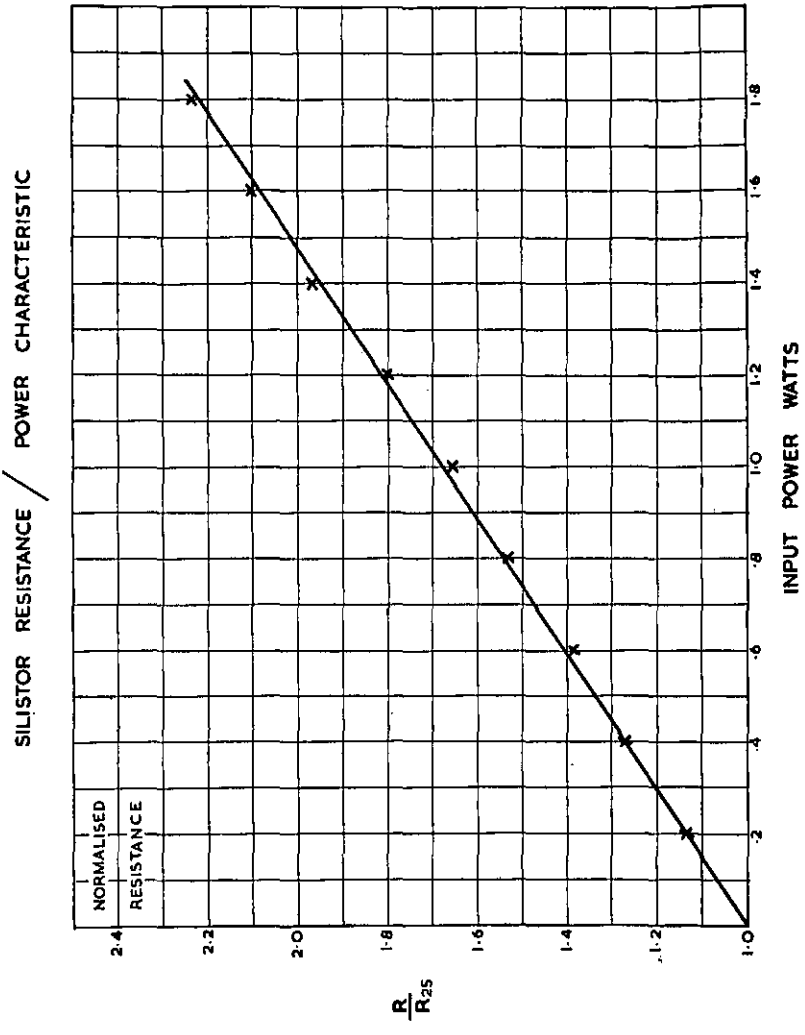
Dimension	Inches	Millimetres
A (nominal)	$\frac{9}{16}$	14,29
B (nominal)	$\frac{1}{4}$	6,35
C (minimum)	$1\frac{1}{2}$	38,10

CODING

Resistance at 25°C (Ω)	Code	
	±10%	±20%
10	502K/100/RY/1	502K/100/RW/1
12	502K/120/RY/1	—
15	502K/150/RY/1	502K/150/RW/1
18	502K/180/RY/1	—
22	502K/220/RY/1	502K/220/RW/1
27	502K/270/RY/1	—
33	502K/330/RY/1	502K/330/RW/1
39	502K/390/RY/1	—
47	502K/470/RY/1	502K/470/RW/1
56	502K/560/RY/1	—
68	502K/680/RY/1	502K/680/RW/1
82	502K/820/RY/1	—
100	502K/101/RY/1	502K/101/RW/1
120	502K/121/RY/1	—
150	502K/151/RY/1	502K/151/RW/1
180	502K/181/RY/1	—
220	502K/221/RY/1	502K/221/RW/1
270	502K/271/RY/1	—
330	502K/331/RY/1	502K/331/RW/1
390	502K/391/RY/1	—
470	502K/471/RY/1	502K/471/RW/1
560	502K/561/RY/1	—
680	502K/681/RY/1	502K/681/RW/1

Type 502K/—/RW/1

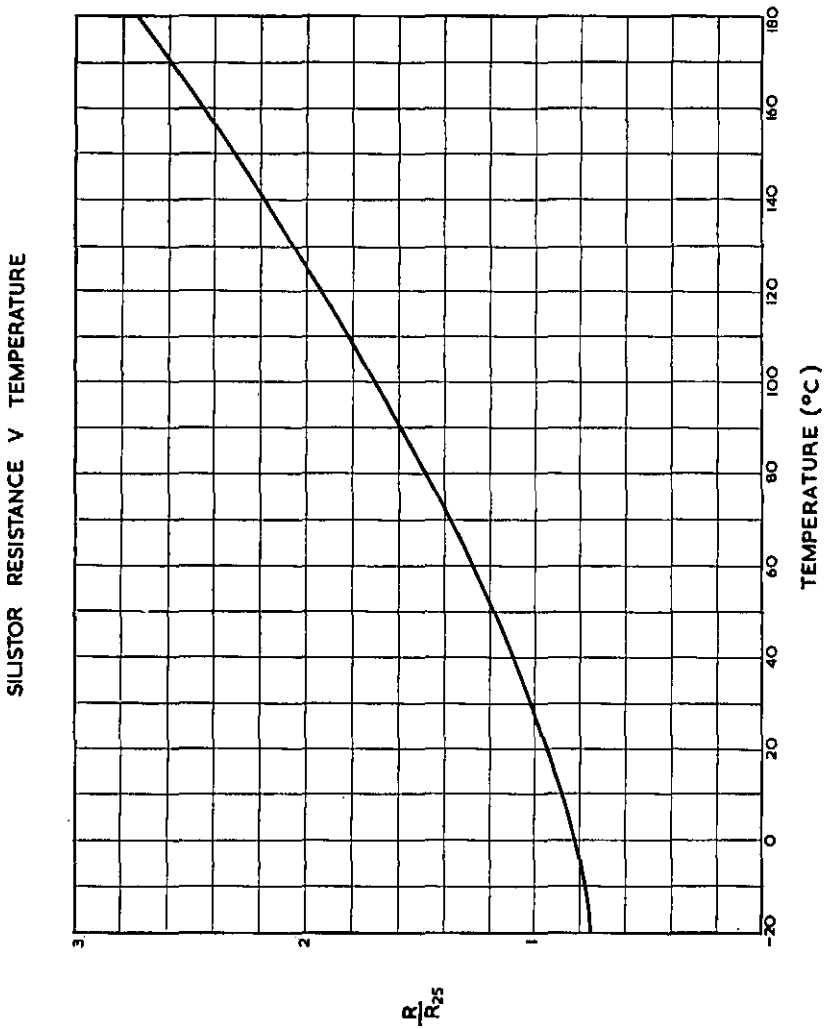
CONTINUED



STC

Type 502K/—/RW/1

CONTINUED



Type 502K/—/RW/1

CONTINUED

SILISTORS TYPE 502K/–/RW
DERATING CURVE