

TRANSISTOR OUTPUT TRANSFORMER

TRS105

TYPE TRS105

JANUARY, 1959.

Ferguson Type TRS105 Transistor Output Transformer is designed to couple two type OC16 or similar transistors, operating from a 12V D.C. supply, to loud speaker voice coil.

Type TRS105 is fully wax impregnated.

RATING

NOMINAL POWER RATING 10 Watts
PRIMARY IMPEDANCE 33 ohms C.T.
SECONDARY IMPEDANCE 15 ohms
PRIMARY D.C. RESISTANCE (At 25°C) 1.4 ohms
SECONDARY D.C. RESISTANCE (At 25°C) 1.0 ohms

MOUNTING

Plated steel wrap-over bracket, firmly crimped to the core, with core-locking tabs, and slotted mounting feet. Connecting leads enamelled copper wire P.V.C. sleeved.

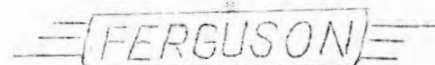
DIMENSIONS

HEIGHT 2-5/16 inches
WIDTH (Over Coils) 2-1/4 inches
LENGTH 2-3/4 inches
OVERALL LENGTH (Inc. Mtg. Feet) 3-3/4 inches
MOUNTING CENTRES (Nominal) 3-1/8 inches
MOUNTING SLOTS 3/16 inch. wide
APPROXIMATE WEIGHT 1-3/4 lbs.

COLOR CODE

PRIMARY START-Brown, C.T.-Red, FINISH-Blue
SECONDARY START-Black, FINISH-Green

Available with 500 ohm line secondary impedances - Type TRS119



TRANSISTOR OUTPUT TRANSFORMER

TRS107

TYPE TRS107

AUGUST, 1958

Ferguson Transistor Output Transformer Type TRS107 is designed to couple two low-power transistors in push-pull to loud speaker voice-coil.

Type TRS107 is fully wax impregnated.

RATING

PRIMARY IMPEDANCE 420 Ohms C.T.
SECONDARY IMPEDANCE 3.5 Ohms
PRIMARY D.C. RESISTANCE (At 25°C) 15 Ohms
SECONDARY D.C. RESISTANCE (At 25°C) ... 0.25 Ohms
NOMINAL POWER RATING 500 Milliwatts

MOUNTING

Cadmium plated steel wrap-over bracket, firmly crimped to the core, with core-locking tabs and mounting feet. Connecting leads primary, 5/.0076 PVC insulated, secondary enamelled copper, PVC sleeved.

DIMENSIONS

HEIGHT 1-11/32 inches
WIDTH (Over Coils) 1-1/16 inches
LENGTH 1-19/32 inches
OVERALL LENGTH (Inc.Mtg.Feet)..... 2-3/8 inches
MOUNTING CENTRES 2-1/16 inches
MOUNTING HOLES 0.136 inches
APPROXIMATE WEIGHT 5 oz.

COLOR CODE

PRIMARY START-Brown, FINISH-Blue, C.T.-Red,
SECONDARY START-Black Sleeve, FINISH-Green Sleeve

FERGUSON

TRANSISTOR OUTPUT TRANSFORMER

TRS108

TYPE TRS108

AUGUST, 1958.

Ferguson Transistor Output Transformer Type TRS108 is designed to couple two low-power transistors in push-pull to loud speaker voice-coil.

Type TRS108 is fully wax impregnated.

RATING

PRIMARY IMPEDANCE 300 Ohms C.T.
SECONDARY IMPEDANCE 3.5 Ohms
PRIMARY D.C. RESISTANCE (At 25°C).... 8.5 Ohms
SECONDARY D.C. RESISTANCE (At 25°C).. 0.2 Ohms
NOMINAL POWER RATING 500 Milliwatts

MOUNTING

Cadmium plated steel wrap-over bracket, firmly crimped to the core, with core-locking tabs and mounting feet. Connecting leads primary, 5/.0076 PVC insulated, secondary enamelled copper wire, PVC sleeved.

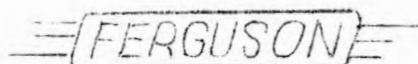
DIMENSIONS

HEIGHT 1-11/32 inches
WIDTH (Over Coils) 1-1/16 inches
LENGTH 1-19/32 inches
OVERALL LENGTH (Inc.Mtg.Feet)..... 2-3/8 inches
MOUNTING CENTRES 2-1/16 inches
MOUNTING HOLES 0.136 inches
APPROXIMATE WEIGHT 5 oz.

COLOR CODE

PRIMARY START-Brown, FINISH-Blue C.T.-Red
SECONDARY START-Black Sleeve, FINISH-Green Sleeve

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TRANSISTOR OUTPUT TRANSFORMER

TRS109

TYPE TRS109

AUGUST 1958

Ferguson Transistor Output Transformer Type TRS109 is designed to couple two low power transistors in push-pull to loud-speaker voice coil. Type TRS109 is fully wax impregnated.

RATING

PRIMARY IMPEDANCE 375 Ohms C.T.
SECONDARY IMPEDANCE 3.5 Ohms
PRIMARY D.C. RESISTANCE (At 25°C) 14 Ohms
SECONDARY D.C. RESISTANCE (At 25°C) 0.25 Ohms
NOMINAL POWER RATING 500 Milliwatts

MOUNTING

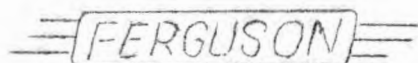
Cadmium plated steel wrap-over bracket, firmly crimped to the core with core-locking tabs and mounting feet.
Connecting leads primary, 5/.0076 PVC insulated, secondary enamelled copper, PVC sleeved.

DIMENSIONS

HEIGHT 1-11/32 inches
WIDTH (Over Coils) 1-1/16 inches
LENGTH 1-19/32 inches
OVERALL LENGTH (Inc. Mtg. Feet) 2-3/8 inches
MOUNTING CENTRES 2-1/16 inches
MOUNTING HOLES 0.136 inch. dia.
APPROXIMATE WEIGHT 5 ozs.

COLOR CODE

PRIMARY START-Brown, FINISH-Blue, C.T.-Red
SECONDARY START-Black Sleeve, FINISH-Green Sleeve



TRANSISTOR OUTPUT TRANSFORMER

TRS119

TYPE TRS119

JUNE, 1959

Ferguson Type TRS119 Transistor Output Transformer is designed to couple two type OC16 or similar transistors, operating from a 12V D.C. supply, to single or multiple 500 ohm speaker lines. It is fully wax impregnated.

RATING

NOMINAL POWER RATING 10 Watts
PRIMARY IMPEDANCE 33 ohms C.T.
SECONDARY IMPEDANCE 500,250,125 ohms
PRIMARY D.C. RESISTANCE (At 25°C) 1.9 ohms
FULL SECONDARY D.C. RESISTANCE (At 25°C). 46 ohms

MOUNTING

Plated steel wrap-over bracket, firmly crimped to the core, with core-locking tabs and slotted mounting feet.
Primary leads enamelled copper wire P.V.C. sleeved.
Secondary leads 5/0076 tinned copper P.V.C. insulated.

DIMENSIONS

HEIGHT 2-5/16 inches
WIDTH (over coils) 2-1/4 inches
LENGTH 2-3/4 inches
OVERALL LENGTH (Inc. Mtg. Feet) 3-3/4 inches
MOUNTING CENTRES (Nominal) 3-1/8 inches
MOUNTING SLOTS 3/16 inch. wide
APPROXIMATE WEIGHT..... 1-3/4 lbs

COLOR CODE

PRIMARY START - Brown, C.T.-Red, FINISH-Blue
SECONDARY Common-Black, 500 ohms-Green.
250 ohms-Yellow, 125 ohms-Orange.

Available with voice-coil secondary impedances - Type TRS105

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TRANSISTOR OUTPUT TRANSFORMER

TRS120

TYPE TRS120

OCTOBER, 1959

Ferguson Transistor Output Transformer Type TRS120 is primarily designed for use in the Radio, Television & Hobbies "1959 KARSET", to couple one Type 2N250 transistor to loudspeaker voice-coil. A separate feedback winding is provided. Oriented grain steel laminations are employed.

Type TRS120 is fully wax impregnated.

RATING

NOMINAL POWER RATING	1.5 Watts
PRIMARY IMPEDANCE	20 Ohms
SECONDARY IMPEDANCE	3.5 Ohms
PRIMARY D.C. RESISTANCE (At 25°C)	1.1 Ohms
SECONDARY D.C. RESISTANCE (At 25°C)	0.27 Ohms
PRIMARY TO FEED-BACK TURNS RATIO	5.7:1

MOUNTING

Cadmium plated steel wrap-over bracket, firmly crimped to the core, with core-locking tabs and mounting feet.

Primary and secondary voice-coil leads enamelled copper wire PVC. sleeved.

Feedback leads 5/.0076 PVC. insulated.

DIMENSIONS

HEIGHT	1-11/32 inches
WIDTH (Over Coils)	1-1/16 inches
LENGTH	1-19/32 inches
OVERALL LENGTH (Inc. Mtg. Feet)	2-3/8 inches
MOUNTING CENTRES	2-1/16 inches
MOUNTING HOLES	0.136 inch. dia.
APPROXIMATE WEIGHT	5 oz.

COLOR CODE

PRIMARY	START-Red Sleeve,	FINISH-Blue Sleeve
SECONDARY	START-Black Sleeve,	FINISH-Green Sleeve
FEEDBACK WINDING.	START-Orange	FINISH-Brown

N.B. For the R.T. & H. "1959 KARSET" use Ferguson Driver Transformer TRD124 and L.T. Filter Choke CF435.



TRANSISTOR OUTPUT TRANSFORMER

TYPE TRS163

TRS163

JULY 1961

Ferguson Transistor Output Transformer Type TRS163 is designed to couple a single audio output transistor to loud-speaker voice coil. While suitable for other similar applications, it is primarily designed for use in the all-transistor "1961 KARSET" described in the June 1961 issue of Radio, Television & Hobbies, using RCS Printed Circuit Board, Part No.580.

The primary is wound in two halves, for series connection for 12 volt operation, or parallel connection for 6 volt operation of the output transistor.

RATING

PRIMARY IMPEDANCE	20 ohms or 5 ohms
SECONDARY IMPEDANCE	3.5 ohms
PRIMARY D.C. RESISTANCE (at 25°C)	PRIM 1 - 0.65 ohms PRIM 2 - 0.76 ohms
SECONDARY D.C. RESISTANCE (at 25°C) ..	0.75 ohms
NOMINAL POWER RATING	4 Watts

MOUNTING

Cadmium plated steel wrap-over bracket, firmly crimped to the core, with core-locking tabs, and lugs for through-board mounting.

Connecting leads enamelled copper wire PVC sleeved.

DIMENSIONS

HEIGHT (above circuit board)	1-1/2 inches
WIDTH (over coils)	1-1/4 inches
LENGTH	1-3/4 inches
APPROXIMATE WEIGHT	6 oz.

COLOR CODE

PRIMARY 1	START - Brown, FINISH - Red
PRIMARY 2	START - Yellow, FINISH - Blue

For 20 ohms -(Join Red to Yellow, use Brown & Blue

For 5 ohms -(Join Brown to Yellow, Red to Blue
(Use Brown-Yellow, and Red-Blue.

SECONDARY	START-Black, FINISH-Green
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MATCHING DRIVER TRANSFORMER - FERGUSON TYPE TRD160.



TRANSISTOR OUTPUT TRANSFORMER

TRS168

GRAIN ORIENTED

MARCH 1961

TYPE TRS168

Ferguson Transistor Output Transformer Type TRS168 is a high quality type employing grain-oriented steel laminations. It is intended for use in the "TRANSISTOR STEREO PLAYER" described in the December 1960 issue of Radio, T.V. & Hobbies or similar applications using transistor Types 2N217S or OC74 in Class B operation.

Type TRS168 is fully Vacuum Wax-impregnated.

RATING

NOMINAL POWER RATING	1 WATT
PRIMARY IMPEDANCE	84 OHMS C.T.
SECONDARY IMPEDANCE	3.5 OHMS
PRIMARY D.C. RESISTANCE (At 25°C)	3.8 OHMS
SECONDARY D.C. RESISTANCE (At 25°C)	0.35 OHMS

MOUNTING

Plated steel wrap-over bracket, firmly crimped to the core, with core-locking tabs and mounting feet.

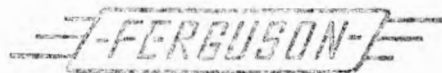
Connecting leads Primary 5/.0076 P.V.C. Insulated
Secondary Enamelled copper P.V.C.

DIMENSIONS

HEIGHT	1-5/16 inches
WIDTH (Over Coils)	1-1/4 inches
LENGTH	1-5/8 inches
OVERALL LENGTH (Inc.Mtg.Feet)	2-1/4 inches
MOUNTING CENTRES	2 inches
MOUNTING HOLES	1/8 inches
APPROXIMATE WEIGHT	5 oz.

COLOR CODE

PRIMARY	START-Brown, C.T.-Red, FINISH-Blue
SECONDARY	START-Black Sleeve, FINISH-Green Sleeve



TRANSISTOR OUTPUT TRANSFORMER

TRS182

TYPE TRS182

SEPT. 1961

Ferguson Transistor Output Transformer Type TRS182 is a "Plug-in" version of Type TRS109. It is smaller due to the use of oriented-grain steel laminations. It is fitted with connection pins and through-board mounting lugs for direct insertion into a printed circuit board such as the new version of R.C.S. 1/2 watt audio board Part No.558.

RATING

PRIMARY IMPEDANCE 375 Ohms C.T.
SECONDARY IMPEDANCE 3.5 Ohms
PRIMARY D.C. RESISTANCE (at 25°C) 10.4 Ohms
SECONDARY D.C. RESISTANCE (at 25°C) 0.15 Ohms

MOUNTING

Cadmium plated steel wrap-over bracket with core locking tabs and thru-board twist or solder lug mounting. Connections are terminated on tinned brass pins which project through the printed circuit board for easy hand or dip soldering.

DIMENSIONS

HEIGHT (above circuit board) 1-1/2 inches
WIDTH (over coils) 13/16 inches
LENGTH 1-9/16 inches
APPROXIMATE WEIGHT 3-1/4 ozs.

CONNECTIONS

With the connection pins facing the observer, with the three pins at the top, connections are:

TOP (PRIMARY) LEFT-START, CENTRE-C.T., RIGHT-FINISH
BOTTOM (SECONDARY) ... LEFT-FINISH, RIGHT-START

MATCHING COMPONENT

DRIVER TRANSFORMER FOR 1/2 WATT AUDIO BOARD - TRD174



TRANSISTOR OUTPUT TRANSFORMER

TRS183

TYPE TRS183

SEPT. 1961

Ferguson Transistor Output Transformer Type TRS183 is a "Plug-in" version of Type TRS133. It is smaller due to the use of oriented-grain steel laminations. It is fitted with connection pins and through-board mounting lugs for direct insertion into a printed circuit board such as the new version of R.C.S. 1 watt audio board Part No.558.

RATING

PRIMARY IMPEDANCE 93 Ohms C.T.
SECONDARY IMPEDANCE 3.5 Ohms
PRIMARY D.C. RESISTANCE (at 25°C) 3.3 Ohms
SECONDARY D.C. RESISTANCE (at 25°C) 0.22 Ohms

MOUNTING

Cadmium plated steel wrap-over bracket with core locking tabs and thru-board twist or solder lug mounting. Connections are terminated on tinned brass pins which project through the printed circuit board for easy hand or dip soldering.

DIMENSIONS

HEIGHT (above circuit board) 1-1/2 inches
WIDTH (over coils) 13/16 inches
LENGTH 1-9/16 inches
APPROXIMATE WEIGHT 3-1/4 ozs.

CONNECTIONS

With the connection pins facing the observer, with the three pins at the top, connections are:

TOP (PRIMARY) LEFT-START, CENTRE-C.T., RIGHT-FINISH
BOTTOM (SECONDARY) ... LEFT - FINISH, RIGHT - START

MATCHING COMPONENT

DRIVER TRANSFORMER FOR 1 WATT AUDIO BOARD - TRD174

FERGUSON TYPE TRS197

Ferguson type TRS197 output transformer was designed for use in the "Mullard" cordless transistor receiver as described in the May 1961 issue of Mullard "Outlook".

RATINGS

Nominal Power rating	1 watt
Primary Impedance	200 Ω C.T.
Secondary Impedance	15 Ω
Turns Ratio	1.83 + 1.83 : 1.
Primary D.C. Resistance	4.84 Ω
Secondary D.C. Resistance	0.68 Ω

TYPICAL APPLICATION

Using 2 x OC74 output transistors to
15 Ω loudspeaker: 9V D.C. supply.

CONSTRUCTION

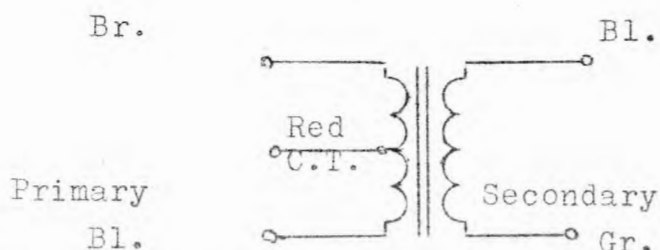
The transformer is mounted in wrapover bracket with core locking tabs securing laminations. Windings are fully vacuum wax impregnated.

DIMENSIONS

Height	1-1/2 inches
Width (over coil)	13/16 inches.
Length	1-9/16 inches.
Mounting Centres	2-1/16 inches.
Approximate weight	3-1/4 ozs.

COLOUR CODE

Primary	Brown Start.
	Red C.T.
	Blue Finish.
Secondary	Black Start
	Green Finish.



TRANSISTOR OUTPUT TRANSFORMER

TRS203

TYPE - TRS203.

SEPT. 1963

Ferguson type TRS203 Transistor Output Transformer is designed for use in the "30 WATT TRANSISTOR P.A. AMPLIFIER" described in Radio, Television and Hobbies, February 1963 to couple two type 2N 456 or similar transistors operating from a 12V D.C. supply to loud speaker voice coil.

Type - TRS203 is fully vacuum wax impregnated.

RATING

NOMINAL POWER RATING.....	30 Watts.
PRIMARY IMPEDANCE.....	6 Ohms C.T.
SECONDARY IMPEDANCE.....	.15 Ohms
PRIMARY D.C. RESISTANCE (At 20°C).....	0.13 Ohms
SECONDARY D.C. RESISTANCE (At 20°C).....	0.8 Ohms

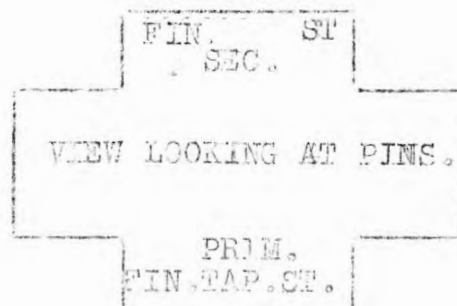
MOUNTING

Plated steel wrap over bracket, firmly crimped to the core, with core-locking tabs and slotted mounting feet. Termination on "PIN BOARD MOUNTING PANEL" secured to core by core-locking tabs.

DIMENSIONS

HEIGHT.....	2 Inches
WIDTH (Over Coils).....	1-3/4 Inches
LENGTH.....	2-3/8 Inches
OVERALL LENGTH (Inc. Mtg. Feet).....	3-1/4 Inches
MOUNTING CENTRES (Nominal).....	2-5/8 Inches
MOUNTING SLOTS.....	5/32 Inches
APPROXIMATE WEIGHT.....	12 Oz.

CONNECTION





TRANSISTOR OUTPUT TRANSFORMER

TRS210.

TYPE TRS210

MARCH 1963.

Ferguson Type TRS210 Transistor Output Transformer is a miniature version of the Ferguson 1 Watt and $\frac{1}{2}$ Watt rating Transistor Output Transformer.

Type TRS210 uses the latest techniques of bobbin winding, oriented grain steel laminations and vacuum wax impregnation.

RATING.

PRIMARY IMPEDANCE	400 Ohms C.T.
SECONDARY IMPEDANCE	3.5 Ohms.
PRIMARY D.C. RESISTANCE (At 25°C).....	13.5 Ohms + 13.5 Ohms
SECONDARY D.C. RESISTANCE (At 25°C).....	0.39 Ohms
NOMINAL POWER RATING	0.25 Watts

MOUNTING

Cadmium plated steel wrap-over bracket firmly crimped to the core with core-locking tabs and through chassis mounting feet.

Connection leads 5/.0076 P.V.C. insulated, firmly anchored.

DIMENSIONS

HEIGHT	11/16 Inches
HEIGHT (Including Mtg. Feet)	7/8 Inches
WIDTH (Over Coil)	11/16 Inches
LENGTH	13/16 Inches
MOUNTING CENTRES	25/32 Inches
APPROXIMATE WEIGHT	5/8 Oz.

COLOR CODE

PRIMARY:	Start - Brown.	Finish - Blue.	C. T. Red
SECONDARY:	Start - Black	Finish - Green.	

APRIL 1965



TRS214

FERGUSON TYPE TRS214

Output transformer type TRS214 was designed for use in transistor amplifiers where a small audio output is required.

RATINGS

Nominal Power Rating	500 mW
Primary Impedance	375 Ω CT.
Secondary Impedance	15 Ω
Turns Ratio	2.5 + 2.5 : 1
Primary D.C. Resistance	13.4 Ω
Secondary D.C. Resistance	0.9 Ω
Primary Inductance (@ 1V 50 cps) ...	1.1 H
Leakage Inductance (@ 1000 cps)	2.1 mH

CONSTRUCTION

The transformer is vacuum wax impregnated, mounted in wrapover type chassis bracket fitted with core locking tabs firmly crimped to the core.

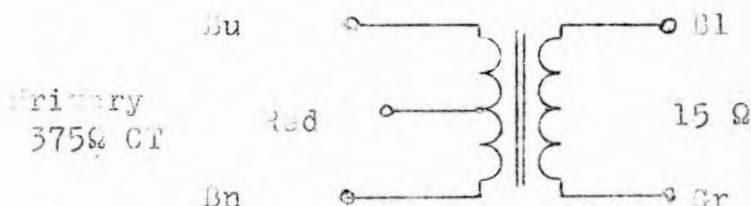
DIMENSIONS

Height	1-1/2 inches.
Width (over coils)	13/16 inches.
Length	1-9/16 inches.
Nominal mounting centres	2 inches.
Approximate weight	3 1/4 ozs.

COLOUR CODE

Primary (start)	Blue.
C.T.	Red
(finish).....	Brown
Secondary (start)	Black.
(finish)	Green.

Also available with 3.5 Ω secondary Type TRS109.





TRANSISTOR OUTPUT TRANSFORMER

TRS215

GRAIN ORIENTED

JULY 1962

TYPE TRS215

Ferguson Transistor Output Transformer Type TRS215 is a high quality type employing grain-oriented steel laminations. It is intended for use in the "TWO UNIT TRANSISTOR MONITOR-INTERCOM", described in the August 1962 issue of Radio T.V. & Hobbies or similar applications using transistor Types 2N217S or OC74 in Class B Operation.

Type TRS215 is fully Vacuum Wax-impregnated.

RATING

NOMINAL POWER RATING 1 WATT
PRIMARY IMPEDANCE 84 OHMS C.T.
SECONDARY IMPEDANCE 15.0 OHMS
PRIMARY D.C. RESISTANCE (At 20°C) 4.0 OHMS
SECONDARY D.C. RESISTANCE (At 20°C) 1.2 OHMS

MOUNTING

Plated steel wrap-over bracket, firmly crimped to the core, with core-locking tabs and mounting feet.

Connecting leads Primary 5/.0076 PVC INSULATED
Secondary Enamelled copper PVC

DIMENSIONS

HEIGHT 1-5/16 INCHES
WIDTH (over coils) 1-1/4 INCHES
LENGTH 1-5/8 INCHES
OVERALL LENGTH (Inc.Mtg.Feet) 2-1/4 INCHES
MOUNTING CENTRES 2 INCHES
MOUNTING HOLES 1/8 INCHES
APPROXIMATE WEIGHT 5 oz.

COLOUR CODE

PRIMARY..... START-Brown, C.T.-Red, FINISH-Blue
SECONDARYSTART-Black Sleeve, FINISH-Green Sleeve

FERGUSON

TRANSISTOR OUTPUT TRANSFORMER.

TRS218.

TYPE TRS218.

MARCH 1963

Ferguson Type TRS218 Transistor Output Transformer is designed for use in a 'Class B Amplifier' No. 412 described in 'Miniwatt Digest' September 1962, to couple a pair of Type AC128 or equivalent transistors operating from a 14 Volt D.C. supply to a Speaker Voice Coil.

Type TRS218 is bobbin wound and fully vacuum wax impregnated.

RATING

NOMINAL POWER RATING	2 Watts
PRIMARY IMPEDANCE	30 + 30 Ohms
SECONDARY IMPEDANCE.....	3.5 Ohms
PRIMARY D.C. RESISTANCE (at 25°C).....	0.9 + 0.9 Ohms
SECONDARY D.C. RESISTANCE (at 25°C).....	0.4 Ohms
URNS RATIO (Primary to Secondary)	2.6 + 2.6/1
APPROXIMATE WEIGHT.....	4-1/2 Ozs.

MOUNTING

Plated steel wrap over brackets, firmly crimped to the core, with core-locking tabs and mounting feet.

Connecting leads, Primary and Secondary 5/.0076 P.V.C. insulated.

DIMENSIONS

HEIGHT.....	1- 5/16 Inches
WIDTH (over coil).....	1-1/4 Inches
LENGTH.....	1-9/16 Inches
OVERALL LENGTH (Inc. mtg. feet).....	2-5/16 Inches
MOUNTING CENTRES.....	2-1/16 Inches
MOUNTING HOLES	1/8 Inches diam.
APPROXIMATE WEIGHT.....	4-1/40zs.

COLOUR CODE.

PRIMARY	Start - Brown.	Finish - Blue.	C.T. Red
SECONDARY.....	Start - Black.....		Finish -Green.

MATCHING DRIVER TRANSFORMER

TYPE - TRD216 for Type OC75 transistor to a pair of type AC128 transistors.



TRANSISTOR OUTPUT TRANSFORMER

TRS219

TYPE - TRS219.

MARCH 1963

Ferguson type TRS219 Transistor Output Transformer is designed for use in a Class 'B' Amplifier, No.412/0.7 described in "Miniwatt Digest", October 1962, to couple a pair of AC128 or equivalent transistors to the speaker voice coil, operating from a 9 or 14 Volt D.C. Supply.

Type TRS219 is bobbin wound and fully vacuum wax impregnated.

RATING

NOMINAL POWER RATING.....	2 Watts
Turns Ratio (Primary-Secondary) 9 Volt position	2.85 + 2.85/1
Turns Ratio (Primary-Secondary) 14 Volt "	2.6 + 2.6/1
PRIMARY D. C. RESISTANCE.....	1 Ohm + 1 Ohm
SECONDARY D. C. RESISTANCE.....	0.45 Ohms

MOUNTING

Plated steel wrap-over brackets, firmly crimped to the core, with core-locking tabs and mounting feet. Connecting leads, Primary and Secondary 10/.010 P.V.C. insulated.

DIMENSIONS

HEIGHT.....	1-5/16 Inches
WIDTH	1-1/4 Inch
LENGTH.....	1-9/16 Inches
OVERALL LENGTH (Inc. Mtg. Feet).....	2-5/16 Inches
MOUNTING CENTRES.....	2-1/16 Inches
MOUNTING HOLES.....	1/8 Inch diam.
APPROXIMATE WEIGHT.....	4-3/4 Ozs.

COLOUR CODE

PRIMARY - Start - Brown.	Finish - Blue.	C.T. Red
SECONDARY - Start - Black.	Finish Green.	Tap - Orange.

MATCHING DRIVER TRANSFORMER

TYPE TRD216 for type OC75 transistor to a pair of type AC128 transistors.



TRANSISTOR OUTPUT TRANSFORMER

TYPE TRS229

Ferguson type TRS229 Transistor Output transformer is designed for use in the "30 WATT TRANSISTOR P.A. AMPLIFIER" described in Radio, Television and Hobbies, January 1963 to couple two type 2N 456 or similar transistors operating from 12V D.C. supply to speaker line. f 500 ohms.

Type TRS299 is fully vacuum wax impregnated.

RATING

NOMINAL POWER RATING	30 WATTS
PRIMARY IMPEDANCE	6 Ohms C.T.
SECONDARY IMPEDANCE	500, 250, 125 Ohms.
URNS RATIO, PRIMARY TO FEEDBACK WINDING.....	1:1.6
PRIMARY D.C. RESISTANCE (AT 18°C).....	.16 Ohms.
SECONDARY D.C. RESISTANCE (AT 18°C).....	3.5 Ohms.

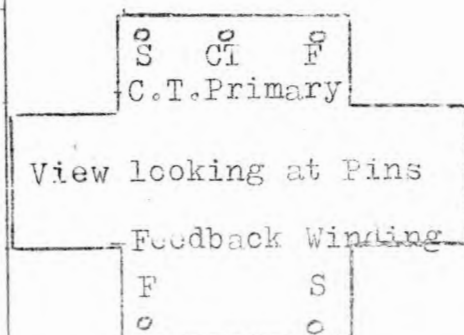
MOUNTINGS

Plated steel wrap over bracket, firmly crimped to the core, with core-locking tabs and slotted mounting feet. Termination on "PIN BOARD MOUNTING PANEL" secured to core by core-locking tabs.

DIMENSIONS.

HEIGHT.....	2	Inches
WIDTH (Over Coils)	1-3/4	Inches
LENGTH	2-3/8	Inches
OVERALL LENGTH (Inc. Mtg. Feet)	3-1/4	Inches
MOUNTING CENTRES (Nominal)	2-5/8	Inches
MOUNTING SLOTS.....	5/32	Inches
APPROXIMATE WEIGHT	12	Ozs.

CONNECTIONS



SECONDARY COLOUR CODE

BLACK	Common
ORANGE	125 Ohms
WHITE	250 Ohms
GREEN	500 Ohms

APRIL 1965

FERGUSON

TRS233

FERGUSON TYPE TRS 233

Output transformer type TRS233 is designed for use in the high performance amplifier as described in the March/April '63 issue of Mullard "Outlook".

This transistor circuit can be used where an amplifier having wide frequency response and low harmonic distortion is required.

RATINGS

Nominal power rating 6 watts.
Turns ratio Primary to Secondary ... 0.69 + 0.69 : 1.
Primary Impedance 30 CT
Primary DC Resistance 0.5 Ω
Secondary DC Resistance 0.7 Ω
Secondary Impedance 15 Ω

N.B. For use with 15 Ω voice coil only.

CONSTRUCTION

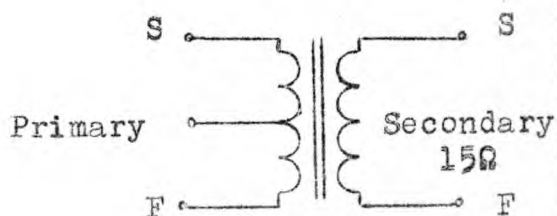
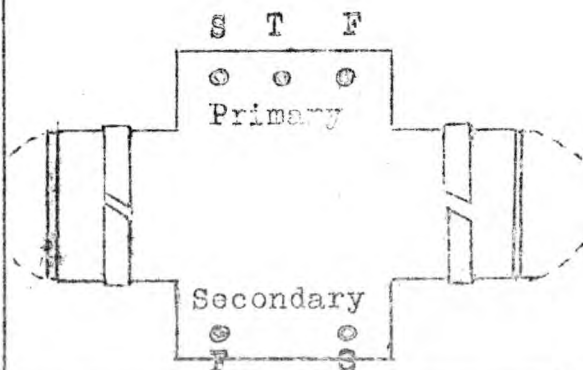
The transformer is mounted in cadmium plated wrapover bracket with core locking tabs firmly crimped to the core; slotted mounting feet are provided. Vacuum wax impregnation is employed.

DIMENSIONS

Height 2 inches.
Length (over coils) 1-3/4 inches.
Width 1-5/16 inches.
Nominal Mounting Centres 2-5/8 inches.
Weight 1 lb.

CONNECTION

(Looking at pins)



APRIL 1965

FERGUSON

TRS242

FERGUSON TYPE TRS242

Output transformer type TRS242 is designed for use with small audio amplifiers.

The pinboard connections employed make it ideal for use with printed circuit boards.

RATINGS

Nominal Power Rating	1 watt.
Primary Impedance	93 Ω CT
Secondary Impedance	15 Ω
Turns Ratio	1.25 + 1.25 : 1
Primary D.C. Resistance	3.3 Ω
Secondary D.C. Resistance	0.44 Ω

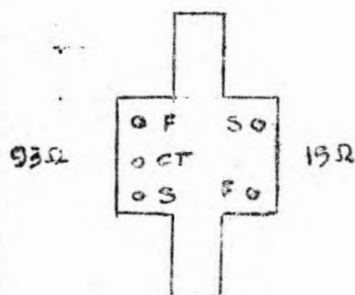
CONSTRUCTION

The transformer is mounted in cadmium plated wrapover bracket with core locking tabs firmly crimped to the core.

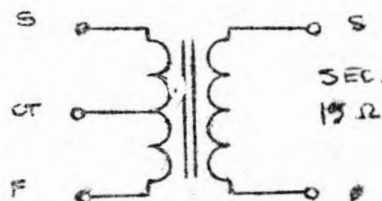
DIMENSIONS.

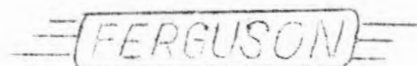
Height (above circuit board).....	1-1/2 inches
Width (over coils)	13/16 inches
Length	1-9/16 inches
Approximate Weight	3-1/4 ozs.

PINBOARD CONNECTIONS (Looking at Pins)



PRIMARY
93 Ω





TRANSISTOR DRIVER TRANSFORMER

TRD107

TYPE TRD107

AUGUST , 1958.

Ferguson Transistor Driver Transformer Type TRD107 is designed to couple one low power transistor to two low-power transistors in push-pull.

Type TRD107 is fully wax impregnated.

RATING

PRIMARY IMPEDANCE 3000 Ohms
SECONDARY IMPEDANCE 1300 Ohms C.T.
PRIMARY D.C. RESISTANCE (At 25°C) .. 150 Ohms
SECONDARY D.C. RESISTANCE (At 25°C) 56 Ohms

MOUNTING

Cadmium plated steel wrap-over bracket, firmly crimped to the core, with core-locking tabs and mounting feet. Connecting leads 5/.0076 PVC insulated.

DIMENSIONS

HEIGHT 1-11/32 inches
WIDTH (Over Coils) 1-1/16 inches
LENGTH 1-19/32 inches
OVERALL LENGTH (Inc. Mtg. Feet) ... 2-3/8 inches
MOUNTING CENTRES 2-1/16 inches
MOUNTING HOLES 0.136 inch. dia.
APPROXIMATE WEIGHT 5 oz.

COLOR CODE

PRIMARY START-Red, FINISH-Blue
SECONDARY START-Yellow, FINISH-Green
C.T. - Black

-0-0-0-0-0-

FERGUSON

TRANSISTOR OUTPUT TRANSFORMER

TRS108

TYPE TRS108

AUGUST, 1958.

Ferguson Transistor Output Transformer Type TRS108 is designed to couple two low-power transistors in push-pull to loud speaker voice-coil.

Type TRS108 is fully wax impregnated.

RATING

PRIMARY IMPEDANCE 300 Ohms C.T.
SECONDARY IMPEDANCE 3.5 Ohms
PRIMARY D.C. RESISTANCE (At 25°C).... 8.5 Ohms
SECONDARY D.C. RESISTANCE (At 25°C).. 0.2 Ohms
NOMINAL POWER RATING 500 Milliwatts

MOUNTING

Cadmium plated steel wrap-over bracket, firmly crimped to the core, with core-locking tabs and mounting feet. Connecting leads primary, 5/.0076 PVC insulated, secondary enamelled copper wire, PVC sleeved.

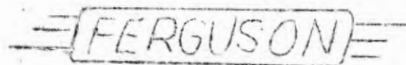
DIMENSIONS

HEIGHT 1-11/32 inches
WIDTH (Over Coils) 1-1/16 inches
LENGTH 1-19/32 inches
OVERALL LENGTH (Inc.Mtg.Feet)..... 2-3/8 inches
MOUNTING CENTRES 2-1/16 inches
MOUNTING HOLES 0.136 inches
APPROXIMATE WEIGHT 5 oz.

COLOR CODE

PRIMARY START-Brown, FINISH-Blue C.T.-Red
SECONDARY START-Black Sleeve, FINISH-Green Sleeve

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TRANSISTOR DRIVER TRANSFORMER

TRD117

TYPE TRD117

JANUARY, 1959.

Ferguson Type TRD117 Transistor Driver Transformer is designed to couple two Type OC72 or similar transistors to two Type OC16 or similar transistors, operating from a 12V D.C. supply.

Type TRD117 is fully wax impregnated.

RATING

PRIMARY IMPEDANCE 420 ohms C.T.
SECONDARY IMPEDANCE 105 ohms C.T.
PRIMARY D.C. RESISTANCE (At 25°C) ... 19 ohms
SECONDARY D.C. RESISTANCE (At 25°C).. 5 ohms

MOUNTING

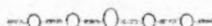
Plated steel wrap-over bracket, firmly crimped to the core, with core-locking tabs and mounting feet.
Connecting leads 5/.0076 P.V.C. insulated.

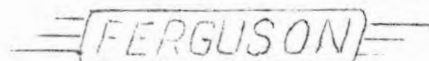
DIMENSIONS

HEIGHT 1-11/32 inches
WIDTH (Over Coil) 1-1/16 inches
LENGTH 1-19/32 inches
OVERALL LENGTH (Inc. Mtg. Feet) 2-3/8 inches
MOUNTING CENTRES 2-1/16 inches
MOUNTING HOLES 0.136 inch. dia.
APPROXIMATE WEIGHT 5 oz.

COLOR CODE

PRIMARY START-Blue, C.T.-Red, FINISH-Brown
SECONDARY START-Yellow, C.T.-Black, FINISH-Green.





TRANSISTOR DRIVER TRANSFORMER

TRD124

TYPE TRD124

JULY 1959.

Ferguson Transistor Driver Transformer Type TRD124 is primarily designed for use in the Radio, Television & Hobbies "1959 KARSET", to couple one Type TS3Z transistor to one Type 2N250 transistor. Oriented grain steel laminations are employed. Type TRD124 is fully wax impregnated.

RATING

PRIMARY IMPEDANCE 8000 ohms
SECONDARY IMPEDANCE 20 ohms
PRIMARY D.C. RESISTANCE (At 25°C) 575 ohms
SECONDARY D.C. RESISTANCE (At 25°C) 1.4 ohms

MOUNTING

Cadmium plated steel wrap-over bracket, firmly crimped to the core with core locking tabs and mounting feet.

Connecting leads 5/.0076 PVC. insulated.

DIMENSIONS

HEIGHT 1-11/32 inches
WIDTH (Over Coils) 1-1/16 inches
LENGTH 1-19/32 inches
OVERALL LENGTH (Inc. Mtg. Feet) 2-3/8 inches
MOUNTING CENTRES 2-1/16 inches
MOUNTING HOLES 0.136 inch. dia.
APPROXIMATE WEIGHT 5 oz.

COLOR CODE

PRIMARY START-Red, FINISH-Blue
SECONDARY START-Yellow, FINISH-Green

N.B. For the R.T. & H. "1959 KARSET", use Ferguson Output Transformer Type TRS120 and L.T. Filter Choke CF435



TRANSISTOR DRIVER TRANSFORMER
TYPE TRD146

TYPE TRD146
OCT.1963

Ferguson Transistor Driver Transformer is designed for use in the "Ducon Transistor Receiver" as described in Radio, Television and Hobbies August 1961 to couple a SFT153 Transistor to a pair of SFT122 Transistors.

Type TRD146 is fully wax impregnated.

RATINGS

PRIMARY IMPEDANCE2500 OHMS
SECONDARY IMPEDANCE1000 OHMS C.T.
PRIMARY D.C.RESISTANCE (AT 14°c)..... 88 OHMS
SECONDARY D.C.RESISTANCE (AT 14°c)..... 30 OHMS

MOUNTING

CADMIUM PLATED STEEL WRAP-OVER BRACKETS, FIRMLY CRIMPTED TO THE CORE, WITH CORE-LOCKING TABS AND MOUNTING FEET.

CONNECTIONS.

LEADS 5/.0076 PVC INSULATED.

DIMENSIONS

HEIGHT 1-3/8 inches.
WIDTH (OVER COILS)..... 1-1/4 inches.
LENGTH 1-5/8 inches.
OVERALL LENGTH 2-11/32 inches.
MOUNTING CENTRES 2-3/32 inches.
MOUNTING HOLES 1/8 inches.
APPROXIMATE WEIGHT 3-1/4 Ozs.

COLOUR CODE

PRIMARY Start-Red, Finish-Blue.
SECONDARY..... Start-Yellow, C.T.-Black, Finish-Green.

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TRANSISTOR DRIVER TRANSFORMER

TRD160

TYPE TRD160

JULY 1961

Ferguson Transistor Driver Transformer Type TRD160 is designed to couple a low-power transistor to a single audio output transistor. While suitable for other similar applications it is primarily designed for use in the all-transistor "1961 KARSET" described in the June 1961 issue of Radio, Television & Hobbies, using RCS Printed Circuit Board, Part No. 580.

RATING

PRIMARY IMPEDANCE 8000 ohms
SECONDARY IMPEDANCE 20 ohms
PRIMARY D.C. RESISTANCE (at 25°C) 530 ohms
SECONDARY D.C. RESISTANCE (at 25°C) 1.2 ohms

MOUNTING

Cadmium plated steel wrap-over bracket, firmly crimped to the core, with core-locking tabs, and lugs for through-board mounting.

Connecting leads 5/.0076 PVC insulated, firmly anchored

DIMENSIONS

HEIGHT (above circuit board) 1-1/2 inches
WIDTH (over coils) 1-3/8 inches
LENGTH 1-3/4 inches
APPROXIMATE WEIGHT 6 oz.

COLOR CODE

PRIMARY START - Red, FINISH - Blue
SECONDARY START - Black, FINISH - Green

MATCHING OUTPUT TRANSFORMER - FERGUSON TYPE TRS163

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TRANSISTOR DRIVER TRANSFORMER

TRD174

TYPE TRD174

SEPT. 1961

Ferguson Transistor Driver Transformer Type TRD174 is a "Plug-in" version of Type TRD108. It is smaller due to the use of oriented-grain steel laminations. It is fitted with connection pins and through-board mounting lugs for direct insertion into a printed circuit board such as the new version of R.C.S. 1/2 watt audio board Part No.558.

RATING

PRIMARY IMPEDANCE 3000 Ohms
SECONDARY IMPEDANCE 2000 Ohms C.T.
PRIMARY D.C. RESISTANCE (at 25°C) 127.9 Ohms
SECONDARY D.C. RESISTANCE (at 25°C) 54.0 Ohms

MOUNTING

Cadium plated steel wrap-over bracket with core locking tabs and thru-board twist or solder lug mounting. Connections are terminated on tinned brass pins which project through the printed circuit board for easy hand or dip soldering.

DIMENSIONS

HEIGHT (above circuit board) 1-1/2 inches
WIDTH (over coils) 13/16 inches
LENGTH 1-9/16 inches
APPROXIMATE WEIGHT 3-1/4 ozs.

CONNECTIONS

With the connection pins facing the observer, with the two pins at the top, connections are:

TOP (PRIMARY) LEFT - START, RIGHT - FINISH
BOTTOM (SECONDARY) LEFT-FINISH, CENTRE-C.T., RIGHT-START

MATCHING COMPONENTS

OUTPUT TRANSFORMER FOR 1/2 WATT AUDIO BOARD - TRS182
OUTPUT TRANSFORMER FOR 1 WATT AUDIO BOARD - TRS183

APRIL 1965



TRD187

FERGUSON TYPE TRD187

Driver transistor transformer type TRD187 is designed for use in the Mullard" cordless transistor receiver as described in the May 1961 issue of Mullard "Outlook".

RATINGS

Primary Impedance	12,000 Ω
Secondary Impedance	980 Ω CT
Turns Ratio	7 : 1 + 1
Primary Inductance (5V 50 cps 2MA DC) ..	5H
Leakage Inductance (@ 1000 c/s)	13.5mH
Primary D.C. Resistance	257 Ω
Secondary D.C. Resistance (full winding)	18.4 Ω

TYPICAL APPLICATION

Interstage transformer coupling 1 OC75 to 2 x OC74 transistors.

CONSTRUCTION

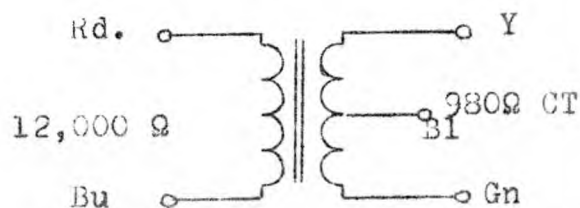
Transformer is vacuum wax impregnated, mounted in cadmium plated wrapover bracket, firmly crimped to the core. Slotted mounting feet are provided.

DIMENSIONS

Height	1-5/16 inches.
Width	1-9/16 inches.
Length	7/8 inches.
Mounting Centres	2 inches.
Weight	2½ ozs.

COLOUR CODE

Primary	Start	-	Red
	Finish	-	Blue
Secondary	Start	-	Yellow
	C.T.	-	Black
	Finish	-	Green.



FERGUSON TYPE TRD194

Ferguson type TRD194 was originally designed for use with the transistor modulator circuit described in "Mullard Outlook" May-June 1960.

RATINGS

Primary	50 ohms.
Secondary	6000 ohms. C.T.
Primary D.C. Resistance	3.2 ohms.
Secondary D.C. Resistance	36 ohms.

TURNS RATIO

Primary/Secondary	1:5.45
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CONSTRUCTION

Transformer is fully vacuum wax impregnated, mounted in wrapover bracket with core locking tabs firmly crimped to the core. Slotted mounting feet are provided.

DIMENSIONS

Height	1-11/32 inches.
Width (Over Coil)	1-1/16 inches.
Length	1-19/32 inches.
Overall length (Inc. Mtg. Feet)	2-3/8 inches.
Mounting centres	2-1/16 inches.
Mounting Holes	0.136 inch. dia.
Approximate weight	5 oz.

CONNECTIONS

Primary	50 ohms. Red, Blue.
Secondary	6000 ohms C.T. Yellow start, Black C.T., Green finish.



TRANSISTOR POWER TRANSFORMER

TRD195

TYPE - TRD195.

MARCH 1963

Ferguson type TRD195 Transistor Driver Transformer is designed for use in the "30 WATT TRANSISTOR P.A. AMPLIFIER" described in Radio, Television and Hobbies, February, 1963, to couple type 2N250 to two type 2N456 in Class 'B' operation from a 12V D.C. supply.

Type - TRD195 is fully vacuum wax impregnated.

RATING.

PRIMARY IMPEDANCE.....	150 Ohms
SECONDARY IMPEDANCE.....	100 Ohms C.T.
PRIMARY D.C. RESISTANCE (At 25°C).....	5.5 Ohms
SECONDARY D.C. RESISTANCE (At 25°C - Total Winding	7.6 Ohms

MOUNTING

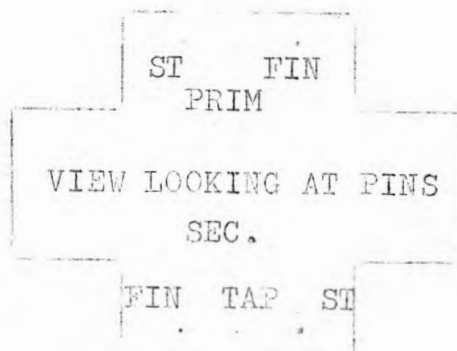
Cadmium plated steel wrap-over brackets firmly crimped to the core, with core-locking tabs and mounting feet.

Termination on 'Pin Board Mounting Panel' secured to core by core-locking tabs.

DIMENSIONS

HEIGHT.....	2 Inches
WIDTH (over coils).....	1-3/4 Inches
LENGTH.....	2-3/8 Inches
OVERALL LENGTH (Inc. Mtg. Feet).....	3-1/4 Inches
MOUNTING CENTRES.....	2-5/8 Inches
MOUNTING SLOTS	5/32 Inches wide
APPROXIMATE WEIGHT.....	1 Lbs.

CONNECTION





TRANSISTOR DRIVER TRANSFORMER.

TRD216

TYPE - TRD216

MARCH 1963

Ferguson type TRD216 Transistor Driver Transformer is designed for use in Class 'B' Audio Amplifier circuit No. 412 described in 'Miniwatt Digest' September, 1962 to couple type OC75 or equivalent transistors to a pair of type AC128 or equivalent transistors.

Type TRD216 uses the latest techniques of bobbin winding, oriented grain steel laminations and vacuum wax impregnation.

RATING.

URNS RATIO (Primary to Secondary).....	2.5/1 + 1
PRIMARY D.C. RESISTANCE (At 20°C).....	257 Ohms
SECONDARY D.C. RESISTANCE (At 20°C).....	25 + 25 Ohms

MOUNTING

Cadmium plated steel wrap over bracket firmly crimped to the core with core-locking tabs and slotted mounting feet.
Connecting leads 5/.0076 PVC insulated, firmly anchored.

DIMENSIONS

HEIGHT	1-3/8 Inches
WIDTH (over coil).....	1 Inch
LENGTH.....	1-9/16 Inches
OVERALL LENGTH (inc. Mtg. Feet).....	2-5/16 Inches
MOUNTING CENTRES.....	2 Inches
APPROX. WEIGHT.....	3-1/4 Ounces

COLOUR CODE

PRIMARY.....	Start - Red.	Finish - Blue.
SECONDARY.....	Start - Yellow.	Finish - Green. C.T. Black.

MATCHING OUTPUT TRANSFORMER.

TYPE: TRS218 for a pair of type AC128 transistors to a 3.5 Ohm Voice Coil.



TRANSISTOR DRIVER TRANSFORMER

TRD223

TYPE TRD223

JUNE 1963

Ferguson Transistor Driver Transformer Type TRD223 is designed for use in the "24 Watt All Transistor Stereo Amplifier" as described in Radio, Television and Hobbies, May 1963.

A Driver Transformer is employed in each channel of this piece of equipment to couple two pairs of matched transistors, type 2N2147.

RATING.

TURNS RATIO (Primary to Secondary).....	2.5/1 + 1
PRIMARY D.C. RESISTANCE (At 20°C).....	50 Ohms
SECONDARY D.C. RESISTANCE (At 20°C).....	12 + 12 Ohms

MOUNTING

Cadmium plated steel wrap over bracket firmly crimped to the core with core-locking tabs and mounting feet.

Connecting leads 5/.0076 P.V.C. insulated, firmly anchored.

DIMENSIONS

HEIGHT.....	1-3/8 Inches
WIDTH (Over Coil).....	1 Inch
LENGTH.....	1-9/16 Inches
OVERALL LENGTH (Inc. Mtg. Feet).....	2-5/16 Inches
MOUNTING CENTRES.....	2 Inches
APPROX WEIGHT.....	3-1/4 Ounces

COLOR CODE

PRIMARY.....	Start - Red	Finish - Blue
SECONDARY No. 1 -	Start - Black	Finish - Green
SECONDARY No. 2 -	Start - White	Finish - Orange