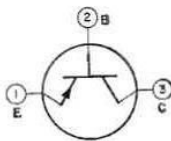


TRANSISTOR

2N217

Germanium p-n-p type used in large-signal audio-frequency amplifier applications. It is used in class B push-pull power-output stages of battery-operated portable radio receivers and audio amplifiers and in



class A high-gain driver stages. JEDEC No. TO-1 package; outline 4, Outlines Section. This type is electrically identical with type 2N109.

MAXIMUM RATINGS

Collector-to-Base Voltage (with emitter open)	-35 max	volts
Collector-to-Emitter Voltage	-25 max	volts
Emitter-to-Base Voltage (with collector open)	-12 max	volts
Collector Current	-150 max	ma
Emitter Current	70 max	ma
Transistor Dissipation:		
At ambient temperatures up to 25°C	165 max	mw
At ambient temperatures above 25°C	See curve	page 80
Temperature Range:		
Operating	-65 to 71	°C
Storage	-65 to 85	°C
Lead Temperature (for 10 seconds maximum)	255 max	°C

CHARACTERISTICS

Collector-Cutoff Current (with collector-to-base volts = -30 and emitter current = 0)	-7 max	µa
Emitter-Cutoff Current (with emitter-to-base volts = -12 and collector current = 0)	-7 max	µa
Base-to-Emitter Voltage (with collector-to-emitter volt = -1 and collector ma = -50 ma)	0.2 to 0.4	volt

Collector-to-Emitter Saturation Voltage (with collector ma = -50 and base current = -5 ma)	-0.15 max	volt
Collector-to-Base Breakdown Voltage (with collector µa = -50 and emitter current = 0)	-35 min	volts
Emitter-to-Base Breakdown Voltage (with emitter µa = -7 and collector current = 0)	-12 min	volts
Collector-to-Emitter Breakdown Voltage (with collector ma = -1 and base current = 0)	-25 min	volts

In Common-Base Circuit

Collector-to-Base Capacitance (with collector-to-base volts = -6 and emitter current = 0)	20 to 60	pf
-------------------------------------------------------------------------------------------	----------	----

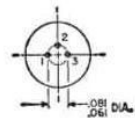
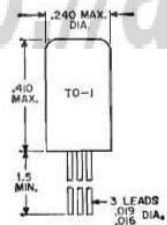
In Common-Emitter Circuit

DC Forward Current-Transfer Ratio (with collector-to-emitter volts = -6, collector ma = -1, and frequency = 1 kilocycle)	50 to 150	ohms
Input Resistance at 1 kilocycle	1000 to 4000	ohms

TYPICAL OPERATION IN CLASS B PUSH-PULL AF AMPLIFIER CIRCUIT

Values are for two transistors except as noted

DC Collector-to-Emitter Supply Voltage	-4.5	-9	volts
DC Base-to-Emitter Voltage	-0.15	-0.15	volt
Peak Collector Current (approx.) per transistor	-35	-40	ma
Maximum-Signal DC Collector Current (approx.) per transistor	-11.5	-13	ma
Zero-Signal DC Collector Current (approx.) per transistor	-2	-2	ma
Signal-Source Impedance per base	375	375	ohms
Load Impedance per collector	100	200	ohms
Signal Frequency	1	1	kc
Circuit Efficiency at maximum rated output	60	69	per cent
Total Harmonic Distortion	30	33	db
Maximum-Signal Power Output	10 max	10 max	per cent mw
	75	160	mw



- 4 -

