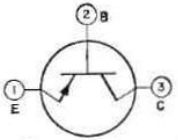
TRANSISTOR

2N2614



Germanium p-n-p type used in a wide variety of small-signal and low-power applications in high-quality audio-frequency amplifier equipment. It is intended primarily for use in low-to-medium-level audio-amplifier and driver stages. It features a high small-signal forward current-transfer ratio, excellent linearity over the entire range of collector current, high cutoff frequency, low saturation currents, and uniform gain characteristics over the entire audio-frequency spectrum. JEDEC No. TO-1 package; outline 4, Outlines Section.

MAXIMUM RATINGS

Collector-to-Base Voltage	−40 max	volts
Collector-to-Emitter Voltage (with external base-to-emitter resistance = 10000 ohms)	−35 max	volts
Emitter-to-Base Voltage	−25 max	volts
Collector Current	−50 max	ma
Emitter Current	50 max	ma
Transistor Dissipation:		
At ambient temperatures up to 55°C	120 max	mw
At ambient temperatures above 55°C	Derate 2.6	mw/°C
At case temperatures up to 55°C with infinite heat sink	300 max	mw
At case temperatures above 55°C with infinite heat sink	Derate 6.67	mw/°C
At case temperatures up to 55°C with typical heat sink	225 max	mw
At case temperatures above 55°C with typical heat sink	Derate 5	mw/°C
Temperature Range:		
Operating (junction) and Storage	−65 to 100	°C
Lead Temperature (for 10 seconds maximum)	255 max	°C

CHARACTERISTICS

Collector-to-Base Breakdown Voltage (with emitter-to-base volts = −2 and collector ma = −0.05)	−40 min	volts
Collector-to-Emitter Breakdown Voltage (with collector ma = −1 and external base-to-emitter resistance = 10000 ohms)	−35 min	volts
Emitter-to-Base Breakdown Voltage (with emitter ma = −0.05 and collector current = 0)	−25 min	volts
Collector-Cutoff Current (with collector-to-base volts = −20 and emitter current = 0)	−5 max	μa
Emitter-Cutoff Current (with emitter-to-base volts = −20 and collector current = 0)	−7.5 max	μa
Extrinsic Base-Lead Resistance (measured at 20 Mc with collector-to-emitter volts = −6 and collector ma = −1)	300	ohms
In Common-Emitter Circuit		
Small-Signal Forward Current-Transfer Ratio (with collector-to-emitter volts = −6, collector ma = −1 and frequency = 1 kilocycle)	100 min	
Small-Signal Forward-Current Transfer-Ratio Cutoff Frequency (with collector-to-emitter volts = −6 and collector ma = −1)	10	Mc
Collector-to-Base Feedback Capacitance (with collector-to-emitter volts = −6 and collector ma = −1)	9	pf