

TRANSISTOR

Germanium p-n-p type used primarily in converter and mixer-oscillator applications in AM battery-operated portable radio receivers and automobile radio receivers operating from either a 6-volt or a 12-volt

supply. JEDEC No. TO-1 package; outline 4, Outlines Section. This type is electrically identical with type 2N140.

2N219

MAXIMUM RATINGS

Collector-to-Base Voltage (with emitter open)	-16 max	volts
Emitter-to-Base Voltage (with collector open)	-0.5 max	volt
Collector Current	-15 max	ma
Emitter Current	15 max	ma
Transistor Dissipation	80 max	mw
Ambient-Temperature Range:		
Operating	-65 to 71	°C
Storage	-65 to 85	°C

CHARACTERISTICS

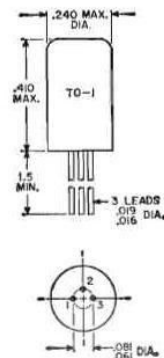
Collector-to-Base Breakdown Voltage (with collector $\mu\text{A} = -10$ and emitter current = 0)	-16 min	volts
Collector-Cutoff Current (with collector-to-base volts = -12 and emitter current = 0)	-6 max	μA
Emitter-Cutoff Current (with emitter-to-base volts = -0.5 and collector current = 0)	-12 max	μA

In Common-Emitter Circuit

Small-Signal Forward Current-Transfer Ratio (with collector-to-emitter volts = -9 and collector ma = -0.6)	75
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TYPICAL OPERATION AT 1 MC IN SELF-EXCITED CONVERTER CIRCUIT

DC Collector-to-Emitter Voltage	-9	volts
DC Collector Current	-0.6	ma
RMS Base-to-Emitter Oscillator Injection Voltage (approx.)	100	mv
Input Resistance (approx.)	700	ohms
Output Resistance (approx.)	75000	ohms
Useful Conversion Power Gain (approx.)	32	db



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