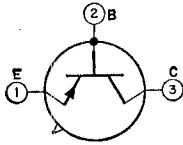


TRANSISTOR



Germanium p-n-p type used in medium-speed switching applications in data-processing equipment. JEDEC No. TO-5 package; outline 6, Outlines Section. This type is identical with type 2N1303 except for the following:

2N1309

CHARACTERISTICS

Base-to-Emitter Voltage (with collector $i_{ma} = -10$ and base $i_{ma} = -0.5$)	-0.15 to -0.35	volt
Collector-to-Emitter Saturation Voltage (with collector $i_{ma} = -10$ and base $i_{ma} = -0.13$)	-0.2 max	volt

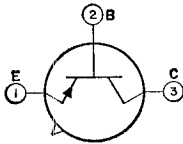
In Common-Base Circuit

Forward-Current-Transfer-Ratio Cutoff Frequency (with collector-to-base volts = -5 and emitter $i_{ma} = 1$)	15 min	Mc
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In Common-Emitter Circuit

Forward Current-Transfer Ratio: With collector-to-emitter volts = -1 and collector $i_{ma} = -10$	80 min	
With collector-to-emitter volts = -0.35 and collector $i_{ma} = -200$	20 min	

TRANSISTOR



Germanium p-n-p bidirectional type used in medium-speed switching circuits in data-processing equipment. This type is designed so that the emitter can also function as a collector and the collector can also function as an

2N1319

emitter. It is especially useful in bidirectional switching, core-driver, and ac-signal relay circuits. JEDEC No. TO-5 package; outline 6, Outlines Section.

MAXIMUM RATINGS

COLLECTOR-TO-BASE VOLTAGE (with emitter open)	-20 max	volts
EMITTER-TO-BASE VOLTAGE (with collector open)	-20 max	volts
COLLECTOR-TO-EMITTER VOLTAGE (with base-to-emitter volts = 1)	-20 max	volts
COLLECTOR CURRENT	±400 max	ma
EMITTER CURRENT	±400 max	ma
TRANSISTOR DISSIPATION:		
At ambient temperatures up to 25°C	120 max	mw
At ambient temperature of 55°C	35 max	mw
At ambient temperature of 71°C	10 max	mw
AMBIENT-TEMPERATURE RANGE:		
Operating	-65 to 71	°C
Storage	-65 to 85	°C

CHARACTERISTICS

Base-to-Emitter Voltage (with collector $i_{ma} = -400$ and base $i_{ma} = -26.7$)	-1.5 max	volts
Collector-to-Emitter Saturation Voltage (with collector $i_{ma} = -400$ and base $i_{ma} = -26.7$)	-0.3 max	volt
Collector-Cutoff Current (with collector-to-base volts = -12 and emitter current = 0)	-6 max	µa

In Common-Base Circuit

Forward-Current-Transfer-Ratio Cutoff Frequency (with collector-to-base volts = -3 and emitter $i_{ma} = 1$)	3 min	Mc
Collector-to-Base Capacitance (with collector-to-base volts = -6 and emitter current = 0)	30 max	pf

In Common-Emitter Circuit

Forward Current-Transfer Ratio (with collector-to-emitter volts = -0.3 and collector $i_{ma} = -400$)	15 min	
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