MAXIMUM RATINGS

COLLECTOR-TO-BASE VOLTAGE (with emitter open)	−15 *max*	volts
COLLECTOR-TO-EMITTER VOLTAGE (with external base-to-emitter resistance = 10 ohms or less)	−15 *max*	volts
EMITTER-TO-BASE VOLTAGE (with collector open)	−3.5 *max*	volts
COLLECTOR CURRENT	−50 *max*	ma
EMITTER CURRENT	50 *max*	ma
TRANSISTOR DISSIPATION:		
At ambient temperatures up to 25°C	150 *max*	mw
At case temperatures up to 25°C	300 *max*	mw
At ambient or case temperatures above 25°C	See curve page 68	
TEMPERATURE RANGE:		
Operating (junction) and storage	−65 to 100	°C
LEAD TEMPERATURE (for 10 seconds maximum)	230 *max*	°C

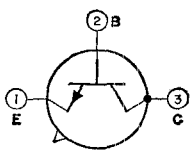
CHARACTERISTICS

Base-to-Emitter Voltage (with collector ma = −10 and base ma = −0.4)	−0.44 *max*	volt
Collector-to-Emitter Saturation Voltage (with collector ma = −10 and base ma = −0.4)	−0.3 *max*	volt
Collector-Cutoff Current (with collector-to-base volts = −5 and emitter current = 0)	−3 *max*	μa
Collector Transition Capacitance (with collector-to-base volts = −10, emitter current = 0, and frequency = 1 Mc)	5	pf
Emitter Transition Capacitance (with emitter-to-base volts = −2, collector current = 0, and frequency = 1 Mc)	3.5	pf
In Common-Emitter Circuit		
Small-Signal Forward Current-Transfer Ratio (with collector-to-emitter volts = −5, collector ma = −10, and frequency = 100 Mc)	3	
DC Forward Current-Transfer Ratio (with collector-to-emitter volts = −0.3 and collector ma = −10)	25 *min*	

TRANSISTORS

2N706
2N706A

Silicon n-p-n types used in high-speed switching applications in data-processing equipment. JEDEC No. TO-18 package; outline 12, Outlines Section.



MAXIMUM RATINGS

	2N706	*2N706A*	
COLLECTOR-TO-BASE VOLTAGE (with emitter open)	25 *max*	25 *max*	volts
COLLECTOR-TO-EMITTER VOLTAGE (with external base-to-emitter resistance = 10 ohms)	20 *max*	20 *max*	volts
EMITTER-TO-BASE VOLTAGE (with collector open)	3 *max*	5 *max*	volts
COLLECTOR CURRENT	—	50 *max*	ma
TRANSISTOR DISSIPATION:			
At ambient temperatures up to 25°C	0.3 *max*	0.3 *max*	watt
At ambient temperatures above 25°C	See curve page 68		
At case temperatures up to 25°C	1 *max*	1 *max*	watt
At case temperature of 100°C	0.5 *max*	1 *max*	watt
TEMPERATURE RANGE:			
Operating (junction) and storage	−65 to 175		°C

CHARACTERISTICS

Base-to-Emitter Saturation Voltage (with collector ma = 10 and base ma = 1)	0.9 *max*	0.9 *max*	volt
Collector-to-Emitter Saturation Voltage (with collector ma = 10 and base ma = 1)	0.6 *max*	0.6 *max*	volt
Collector-Cutoff Current (with collector-to-base volts = 15 and emitter current = 0)	0.5 *max*	0.5 *max*	μa
In Common-Base Circuit			
Collector-to-Base Capacitance (with collector-to-base volts = 10 and emitter current = 0)	6 *max*	—	pf