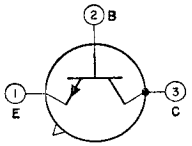
Collector-to-Emitter Saturation Voltage:		
With collector ma = 20 and base ma = 0.5	0.2 *max*	volt
With collector ma = 200 and base ma = 6.7	0.3 *max*	volt
Collector-Cutoff Current (with collector-to-base volts = 12 and emitter current = 0)	8 *max*	μa
Stored Base Charge (with collector ma = 20 and base ma = 1)	1000 *max*	pcoul
In Common-Base Circuit		
Forward-Current-Transfer-Ratio Cutoff Frequency (with collector-to-base volts = 6 and emitter ma = −1)	10 *min*	Mc
Collector-to-Base Capacitance (with collector-to-base volts = 6 and emitter current = 0)	25 *max*	pf
In Common-Emitter Circuit		
Forward Current-Transfer Ratio:		
With collector-to-emitter volts = 0.2 and collector ma = 20	40 *min*	
With collector-to-emitter volts = 0.3 and collector ma = 200	30 *min*	

POWER TRANSISTOR

2N1092



Silicon n-p-n type used in a wide variety of intermediate-power switching and amplifier applications in industrial and military equipment. It is used in power switching, dc-to-dc converter, inverter, chopper, solenoid and relay control circuits; in oscillator, regulator, and pulse-amplifier circuits; and as a class A or class B push-pull audio and servo amplifier. It features low saturation resistance, high current and power dissipation, high beta at high current, and excellent high-temperature performance. JEDEC No. TO-5 package; outline 6, Outlines Section.

MAXIMUM RATINGS

COLLECTOR-TO-BASE VOLTAGE (with emitter open)	60 *max*	volts
COLLECTOR-TO-EMITTER VOLTAGE:		
With base short-circuited to emitter	60 *max*	volts
With base open	30 *max*	volts
EMITTER-TO-BASE VOLTAGE (with collector open)	12 *max*	volts
COLLECTOR CURRENT	0.5 *max*	ampere
EMITTER CURRENT	−0.5 *max*	ampere
BASE CURRENT	0.2 *max*	ampere
TRANSISTOR DISSIPATION:		
At case temperatures up to 25°C	2 *max*	watts
At case temperatures above 25°C	See curve page 68	
TEMPERATURE RANGE:		
Operating (junction) and storage	−65 to 175	°C

CHARACTERISTICS

Emitter-to-Base Voltage (with collector-to-emitter volts = 4 and collector ma = 200)	−1.2	volts
Collector-Cutoff Current (with collector-to-base volts = 60 and emitter current = 0)	15	μa
Emitter-Cutoff Current (with emitter-to-base volts = 12 and collector current = 0)	1	μa
Collector Current:		
With collector-to-emitter volts = 60 and base short-circuited to emitter	100	μa
With collector-to-emitter volts = 30 and base open	100	μa
Thermal Resistance:		
Junction-to-case	35	°C/watt
Junction-to-ambient	225 *max*	°C/watt
Thermal Time Constant	8	msec
In Common-Base Circuit		
Small-Signal Forward-Current-Transfer-Ratio Cutoff Frequency (with collector-to-base volts = 28 and collector ma = 5)	1.5	Mc
In Common-Emitter Circuit		
DC Forward Current-Transfer Ratio (with collector-to-emitter volts = 4 and collector ma = 200)	35	