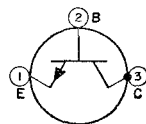


## POWER TRANSISTOR

## 2N1484

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-8 package; outline 8, Outlines Section. This type is identical with type 2N1486 except for the following:

## CHARACTERISTICS

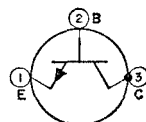
*In Common-Emitter Circuit*

DC Forward Current-Transfer Ratio (with collector-to-emitter volts = 4 and collector ma = 750) .....	20 to 60	
DC Collector-to-Emitter Saturation Resistance (with collector ma = 750 and base ma = 75) .....	2.67 max	ohms

## POWER TRANSISTOR

## 2N1485

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-8 package; outline 8, Outlines Section. This type is identical with type 2N1486 except for the following:

## MAXIMUM RATINGS

COLLECTOR-TO-BASE VOLTAGE (with emitter open) .....	60 max	volts
COLLECTOR-TO-EMITTER VOLTAGE:		
With emitter-to-base volts = 1.5 .....	60 max	volts
With base open .....	40 max	volts

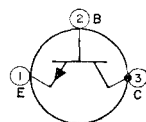
## CHARACTERISTICS

Collector-to-Emitter Breakdown Voltage (with emitter-to-base volts = 1.5 and collector ma = 0.25) .....	60 min	volts
Collector-to-Emitter Sustaining Voltage (with collector ma = 100 and base current = 0) .....	40 min	volts

## POWER TRANSISTOR

## 2N1486

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-8 package; outline 8, Outlines Section.

### MAXIMUM RATINGS

COLLECTOR-TO-BASE VOLTAGE (with emitter open).....	100 max	volts
COLLECTOR-TO-EMITTER VOLTAGE:		
With emitter-to-base volts = 1.5.....	100 max	volts
With base open.....	55 max	volts
EMITTER-TO-BASE VOLTAGE (with collector open).....	12 max	volts
COLLECTOR CURRENT.....	3 max	amperes
EMITTER CURRENT.....	-3.5 max	amperes
BASE CURRENT.....	1.5 max	amperes
TRANSISTOR DISSIPATION:		
At case temperatures up to 25°C.....	25 max	watts
At case temperatures above 25°C.....	See curve	page 68
TEMPERATURE RANGE:		
Operating (junction) and storage.....	-65 to 200	°C

### CHARACTERISTICS

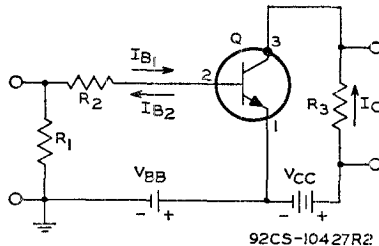
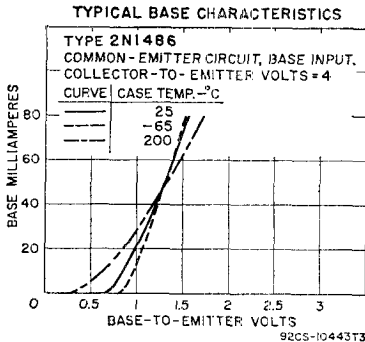
Collector-to-Emitter Breakdown Voltage (with emitter-to-base volts = 1.5 and collector ma = 0.25).....	100 min	volts
Collector-to-Emitter Sustaining Voltage (with collector ma = 100 and base current = 0).....	55 min	volts
Base-to-Emitter Voltage (with collector-to-emitter volts = 4 and collector ma = 750).....	3.5 max	volts
Collector-Cutoff Current (with collector-to-base volts = 30 and emitter current = 0).....	15 max	μa
Emitter-Cutoff Current (with emitter-to-base volts = 12 and collector current = 0).....	15 max	μa
Thermal Resistance:		
Junction-to-case.....	7 max	°C/watt
Junction-to-ambient.....	100 max	°C/watt
Thermal Time Constant.....	10	msec

#### In Common-Base Circuit

Small-Signal Forward-Current-Transfer-Ratio Cutoff Frequency (with collector-to-base volts = 28 and collector ma ≈ 5).....	1.25	Mc
Collector-to-Base Capacitance (with collector-to-base volts = 40 and emitter current ≈ 0).....	175	pf

#### In Common-Emitter Circuit

DC Forward Current-Transfer Ratio (with collector-to-emitter volts = 4 and collector ma = 750).....	35 to 100	
Collector-to-Emitter Saturation Resistance (with collector ma = 750 and base ma = 40).....	1 max	ohm



$V_{BB} = 8.5$  volts  
 $V_{CC} = 12$  volts  
 $R_1 = 50$  ohms, 1 watt  
 $R_2 = 220$  ohms, 1 watt  
 $R_3 = 15.9$  ohms, 2 watts

### TYPICAL OPERATION IN POWER-SWITCHING CIRCUIT ABOVE

DC Collector Supply Voltage ( $V_{CC}$ ).....	12	volts
DC Base Supply Voltage ( $V_{BB}$ ).....	-8.5	volts