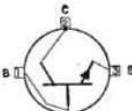


POWER TRANSISTOR

2N3263

Silicon n-p-n type used in a wide variety of aerospace, military, and industrial applications requiring a high degree of reliability. The high current-handling capability of this type and its fast switching speed

make it especially suitable in circuits where optimum circuit efficiency is desired. This type is used in switching-control amplifiers, power gates, switching regulators, dc-dc converters, dc-ac inverters, dc-rf amplifiers, and power oscillators. Outline 45, Outlines Section.



MAXIMUM RATINGS

Collector-to-Base Voltage	150 max	volts
Collector-to-Emitter Voltage (with emitter-to-base volts = -1.5)	150 max	volts
Collector-to-Emitter Sustaining Voltage:		
With base-to-emitter resistance = 50 ohms or less	110 max	volts
With base open	90 max	volts
Emitter-to-Base Voltage	7 max	volts
Collector Current	25 max	amperes
Base Current	10 max	amperes
Transistor Dissipation	See Dissipation Curve	
Temperature Range:	-65 to 200	
Operating (junction) and Storage		°C

CHARACTERISTICS

Emitter-to-Base Voltage (with emitter-to-base ampere = 0.02 and collector current = 0)	7 min	volts
Collector-to-Emitter Sustaining Voltage:		
With collector ampere = 0.2 and base current = 0	90 min	volts
With external base-to-emitter resistance = 50 ohms or less, collector ampere = 0.2, and base current = 0	110 min	volts
Collector-to-Emitter Saturation Voltage (with pulsed collector amperes = 15* and base amperes = 1.2)	0.75 max	volts
Base-to-Emitter Saturation Voltage (with pulsed collector amperes = 15* and base amperes = 1.2)	1.60 max	volts
Collector-Cutoff Current:		
With case temperature = 25°C, collector-to-base volts = 80, and base current = 0	4 max	ma
With case temperature = 125°C, collector-to-base volts = 80, and base current = 0	4 max	ma
Emitter-Cutoff Current:		
With case temperature = 25°C, emitter-to-base volts = 5, and collector current = 0	5 max	ma
With case temperature = 125°C, emitter-to-base volts = 5, and collector current = 0	5 max	ma
Collector Current (with base reversed biased, collector-to-emitter volts = 150, and emitter-to-base volts = 1.5)	20 max	ma
Thermal Resistance (with junction temperature = 100°C, collector-to-emitter volts = 40, and collector amperes = 0.5)	1.5 max	°C/watt
Saturated Switching Turn-on Time (with dc collector supply volts = 30, turn-on and turn-off base amperes = 1.2, and collector amperes = 15)	0.5 max	μsec
Saturated Switching Storage Time (with dc collector supply volts = 30, turn-on and turn-off base amperes = 1.2, and collector amperes = 15)	1.5 max	μsec
Saturated Switching Fall Time (with dc collector supply voltage = 30, turn-on and turn-off base amperes = 1.2, and collector amperes = 15)	0.5 max	μsec
Second Breakdown Characteristics (safe-operating region):		
Current at second breakdown with collector-to-emitter volts = 75	350 min	ma
Energy at second breakdown with emitter-to-base volts = -6, collector amperes = 10, base-to-emitter resistance = 20 ohms, and inductance = 40 μH	2 min	mjoules

In Common-Base Circuit

Collector-to-Base Feedback Capacitance (with collector-to-base volts = 10, base current = 0, and frequency = 1 Mc) ...

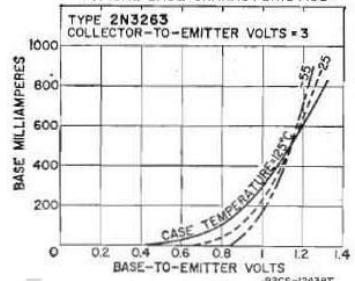
900 max pf

In Common-Emitter Circuit

DC Forward Current-Transfer Ratio:		
With collector-to-emitter volts = 3 and pulsed collector amperes = 5*	40 min	
With collector-to-emitter volts = 3 and pulsed collector amperes = 15*	25 to 75	
With collector-to-emitter volts = 4 and pulsed collector amperes = 20	20 min	
Gain-Bandwidth Product (with collector-to-emitter volts = 10, collector amperes = 3, and frequency = 5 Mc)	20 min	Mc

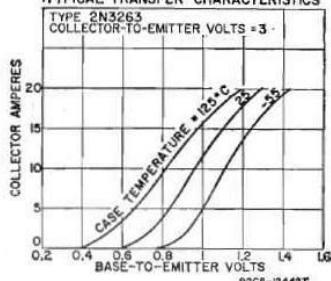
*Pulse duration = 350 μsec or less; duty factor = 0.02 or less.

TYPICAL BASE CHARACTERISTICS



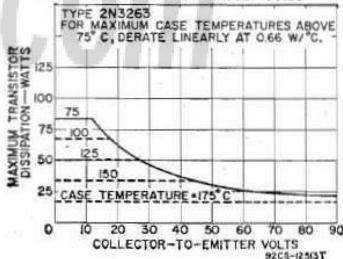
92CS-1243BT

TYPICAL TRANSFER CHARACTERISTICS



92CS-1244BT

DISSIPATION CHARACTERISTICS



92CS-1250T

<http://alltransistors.com>

