

Q.1 mosfet vs bjt

BJT	MOSFET
It is a current controlled device	It is a voltage controlled device
It is a bipolar device, current conduction is due to both electron and holes	It is a unipolar device, current conduction is due to majority carriers only
The input impedance is low (kilo ohms)	The input impedance is high (mega ohms)
BJTs are more commonly used in low-current application	Mosfets are ideal for high -power application
Switching frequency is low	Switching frequency is high
High gain, low bandwidth	Low gain, large bandwidth

Q.2 mofet vs fet

Characteristics	FET	MOSFET
Full Form	Field-Effect Transistor (FETs)	Metal-Oxide-Semiconductor Field-Effect Transistor (MOSFETs)
Gate Voltage	Controls channel width	Modulates channel conductivity
Types	JFET, MESFET, HEMT	NMOS, PMOS
Power Consumption	Lower than Bipolar Transistors	Lower than Bipolar Transistors
Input Impedance	High	Very High
Noise	More Noisy	Less Noisy
Thermal Stability	Good	Less Stable
Complexity	Simple	More Complex
Applications	Amplifiers, switches, and RF devices	Power Supplies, Digital Logic, and Amplifiers
Channel Conductors	Majority carriers	Majority carriers
Gate Structure	metal or doped semiconductor layer	Metal on top of a thin oxide layer

Q.3 ram vs rom ?

RAM	ROM
Definition of RAM is Random Access Memory	Definition of ROM is Read-only Memory
Random Access Memory (RAM) is expensive when compared to ROM	ROM is cheaper when compared to RAM.
The speed of Random Access Memory (RAM) is higher when compared to ROM	The speed of Read-only Memory (ROM) is slower when compared to RAM.
Random Access Memory (RAM) has a higher capacity when compared to ROM	ROM has a lower capacity compared to RAM
Data in RAM can be modified, erased, or read.	Data in ROM can only be read, it cannot be modified or erased.
The data stored in RAM is used by the Central Processing Unit (CPU) to process current instructions	The data stored in ROM is used to bootstrap the computer.
Data stored on RAM can be accessed by the Central Processing Unit.	If the Central Processing Unit (CPU) needs to access the data on ROM, first the data must be transferred to RAM, and then the Central Processing Unit (CPU) will be able to access the data.
Data of RAM is very volatile, it will exist as long as there is no interruption in power.	Data present in Read-Only Memory (ROM) is not volatile, it is permanent. Data will remain unchanged even when there is a disruption in the power supply.

Q.4 recent mobile processor ?

Qualcomm: snapdragon 8 Gen 3; 4nm 3.3GHz
Mediatek: Dimensity 9300 4nm, 3.25GHz
Samsung:Exynos 1380 ; 5nm, 2.4GHz
Apple: Apple silicon A17pro, 3nm TSMC, 3.78Ghz (2) and 2.11Ghz(4)