

Electrical Overstress – 3

Multiple Choice Quiz

TI Precision Labs – Op Amps



Quiz: Electrical Overstress – 3

1. Which specification on a TVS diode is matched to the amplifier's operating voltage?

- a. Clamp voltage
- b. Reverse breakdown voltage
- c. Forward voltage drop
- d. Reverse standoff voltage

2. What is the typical current flow through a TVS diode at the reverse breakdown voltage?

- a. 1 μ A
- b. 1mA
- c. 1A
- d. 10A

3. What is the typical current flow through a TVS diode at the reverse standoff voltage?

- a. 1 μ A
- b. 1mA
- c. 1A
- d. 10A

Quiz: Electrical Overstress – 3

4. In cases where the operating voltage and absolute maximum voltage are near each other, it can be difficult to find a TVS diode that will have low leakage at the operating voltage but will fully turn on before the absolute maximum voltage. Which parameter on the TVS diode can help resolve this?

- a. Turn on time
- b. Temperature rating
- c. Power rating

5. In a particular amplifier design, the operating voltage is 10V and the absolute maximum is 12V. No TVS diode is available that will be off at 10V and on before 12V. What can be done to resolve this?

- a. If possible, reduce the operating supply voltage to a lower level.
- b. Use the best TVS available. Some protection is better than none.
- c. Use a Schottky diode instead of a TVS diode.
- d. Use a ferrite bead on the power supply instead of a TVS diode.
- e. Option a & b
- f. Option c & d

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Multiple Choice Quiz: Solutions

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