

IEEE Standard for Test Methods and Performance Values for Metal-Oxide Varistor Surge Protective Components

IEEE Power and Energy Society

Sponsored by the
Surge Protective Devices Committee

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Abstract: Test methods and preferred values for metal-oxide varistor (MOV) surge protective components are covered in this standard and have the following main parameter ranges: packaging (leaded disc-type or surface mount), nominal varistor voltage (5 V to 1200 V), 8/20 surge current rating (10 A to 70 kA), and 8/20 clamping voltage (10 V to 3 kV). With appropriate component selection, these components could be used for the overvoltage protection of power and signal systems having continuous ac voltages (2.5 V rms to 750 V rms), steady-state dc voltages (3.3 V to 1000 V), and peak signal feed voltages (3.5 V to 850 V). Information is given on manufacturer type testing used to determine environmental performance and rated values.

Keywords: clamping voltage, ESD, IEEE C62.33™, leaded, MCOV, metal-oxide varistor, MOV, nominal voltage, surface mount, surge current rating, TOV, varistor

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