

Lightning Surge Withstand

LIGHTNING SURGE WITHSTAND - RJS and SMP SERIES

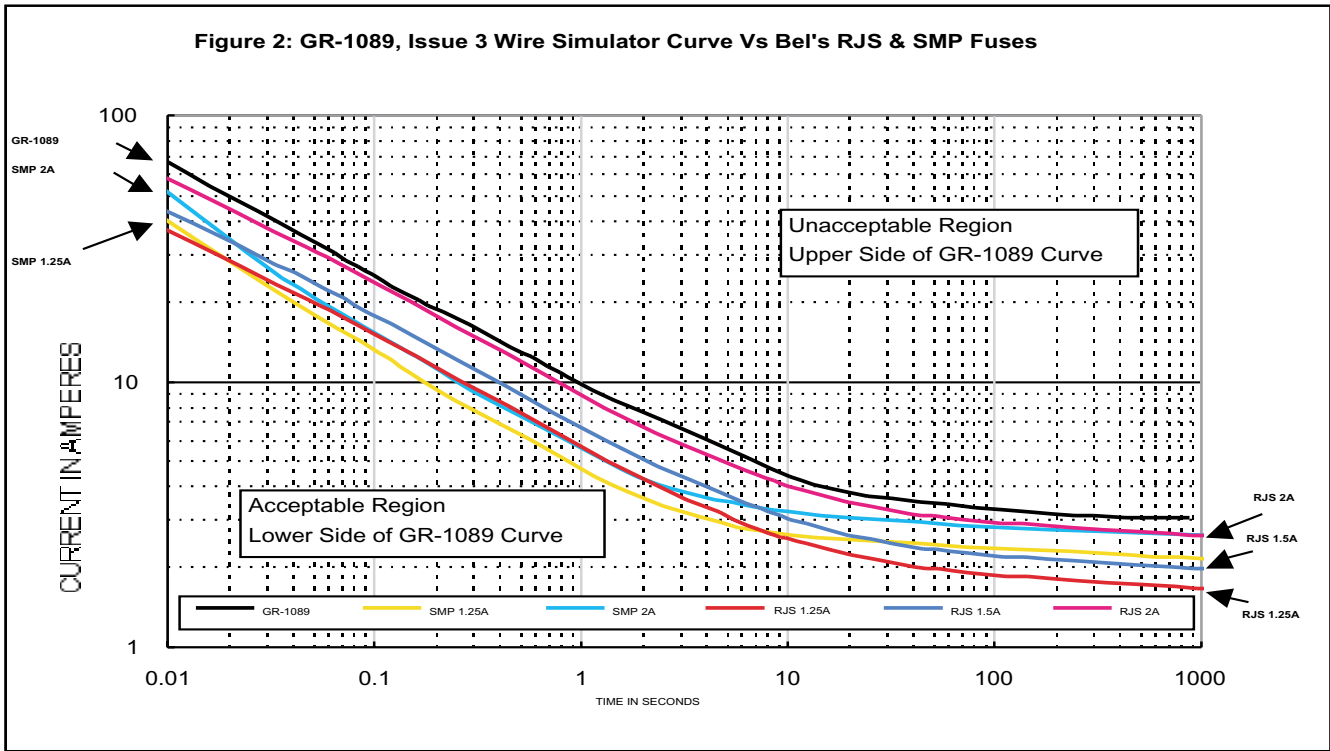
(Note - Type MJS Fuses are NOT recommended for use in new telecom products that are intended to comply with Telcordia GR-1089, Issue 3 and/or UL/IEC 60950)

The RJS and SMP Fuse Series were developed specifically for telecom applications. These fuses must withstand repeated current surges generated by lightning, as well as operate to protect the end product during a “Power Cross” condition (usually 600VAC imposed on the tip and ring circuits). Typical curves showing our RJS and SMP fuses complying with Telcordia GR-1089, Issue 3 are illustrated in Figure 2 below.

specified in the FCC Part 68 and Telcordia GR-1089 documents.

The fuse is subjected to a set number of pulses (with up to one minute between pulses to allow for cooling of the element), on circuits adjusted to deliver the indicated peak current and waveform.

For any given application, the circuit designer must calculate the actual peak current his product will see during the FCC/Bellcore testing. For a 800V, 10x560µSec, 100A test, for example, the total test circuit and product impedance must be factored and the peak current calculated (or



To develop a means for designers to select the proper fuse rating AND for comparison to other fuses / protectors, Bel has generated “Peak Surge Current Withstand” ratings for fuses in the RJS and SMP Series. Tests are conducted using double exponential impulse waveforms, as

measured). The actual peak current should always be less than the available 100A. The withstand values given for the RJS and SMP fuse rating can then be used to select the most suitable fuse rating for the application.