Model 2854-1 Transient Generator

for MIL-STD-461F CS106 Conducted Transient Susceptibility Test

APPLICATION:
Solar Model 2854-1 Transient Generator is designed for screen room use in making conducted transient susceptibility tests as specified in **MIL-STD-461F, Test Method CS106.**

DESCRIPTION:
The generator provides 5 µS ±22 %, pulse with a 1.5 µS ± 0.5 µS raise time across a 5.0 ohm non-inductive resistor. Voltage is adjustable to greater then 600 volts. The undershoot is limited to less then 120 volts peak (maximum) and less then 20 µS. The repetition rate is variable and can be adjusted from 0.8 p.p.s. to10 p.p.s. Single transients can be applied with the pushbutton on the front panel.

Two sets of output terminals allow either parallel or series injection into the power line. The Series injection may be used on D.C. and A.C. lines. Parallel injection should be used on D.C. lines only. The output winding used for series injection can carry 25 amperes of power current. The output terminals are isolated from the chassis and the power cord.

FEATURES:
- Provides output levels from 10 volts to more then 600 volts into 5 ohms.
- Adjustable pulse position on A.C. lines relates the transient susceptibility to real time aspects of digital systems.
- Single pulse feature for controlled isolation of transient effects
- Output terminals for series and parallel injection.
- Standard rack panel construction: 7" high, 19" wide, 12.75" deep. (17.78 cm wide, 48.26 cm high, 32.38 cm deep.)

SPECIFICATIONS:
Spike Amplitude: Continuously adjustable from 10 volts to over 600 volts peak.
Repetition Rate: Continuously adjustable from 0.8 to 10 p.p.s.
Rise time: 1.5 ± 0.5 µS into 5 ohms.
Spike Duration: Output falls to zero in 5 µS ± 22 %.
Spike Shape: Ringing characteristic as shown in figure CS106-1 in MIL-STD-461F.

Phase Adjustment: Pulse position adjustable from 0° to 360° periodically on 50, 60 or 400 Hz sine wave.
Internal Impedance: less then 2.0 ohms.
Power Requirements: 115 volts 60 Hz, 1.6 amperes. (230 volts, 50 Hz, 0.8 amperes available.)
Size: Standard rack panel: 7" high x 19" wide x 12.75" deep. (17.78 cm x 48.26 cm x 32.38 cm)

SOLAR ELECTRONICS COMPANY
Innovative EMI Solutions Since 1960
e-mail: sales@solar-emc.com www.solar-emc.com
A division of A.T. Parker, Inc.
(800) 952-5302
(818) 755-1700
FAX (818) 755-0078

ACCESSORIES RECOMMENED FOR CS106 TESTING:

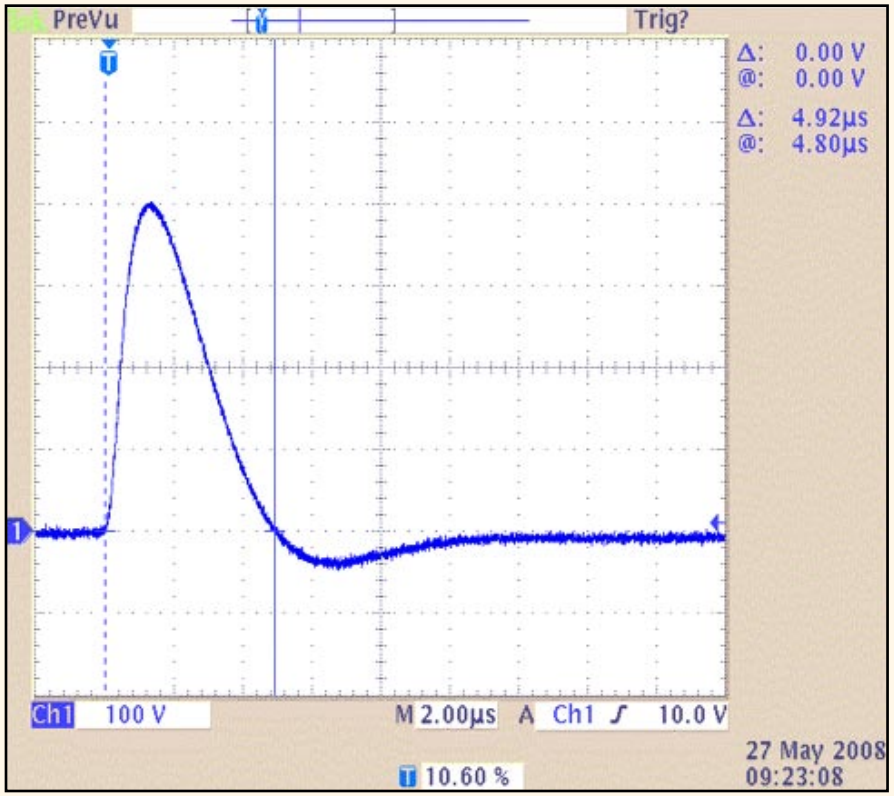
Type 8525-1 Five Ohm Non-Inductive Load

Type 9133-1 10 µF Delta Capacitor Assembly

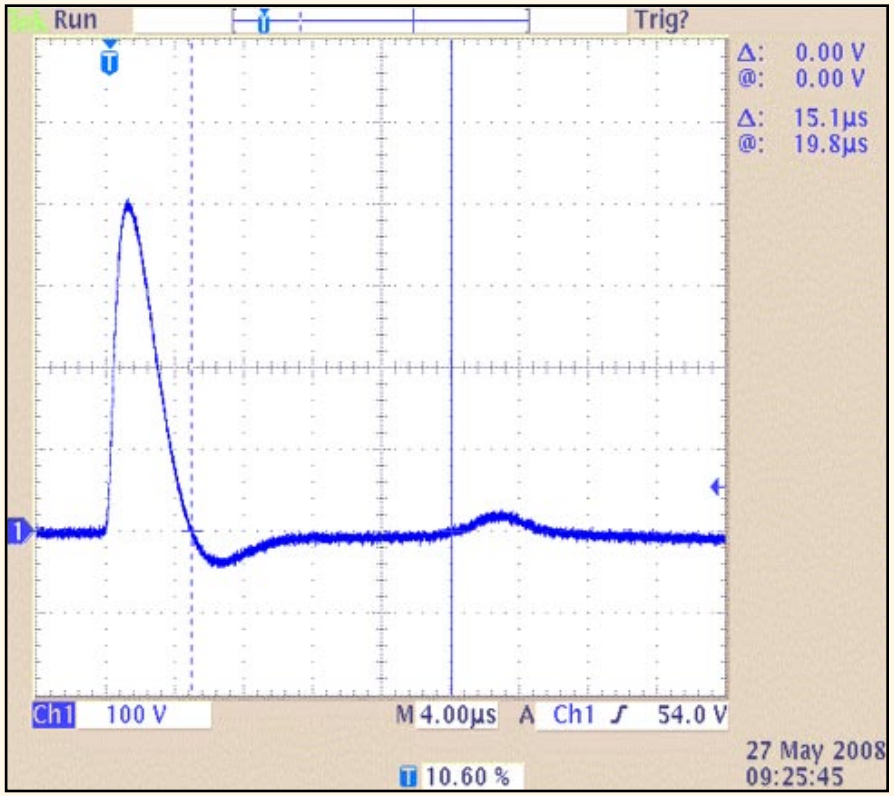
Type 9146-1 10 µF Wye Capacitor Assembly

Type 9233-50-TS-50-N Line Impedance Stabilization Network

Type 7032-1 Power Line Isolation Transformer



Calibration waveform per MIL-STD-461F CS106 FIGURE CS106-1



V sag returns to 0 volts in about 15 µS. There is a small positive voltage just after returning to 0 volts.