

Vehicle Power Supply Circuit Negative Surge Simulator TIS 60T1

Datasheet



In Compliance with

- > Toyota TSC0502G
- > Toyota TSC3500G
- > Toyota TSC3590G
- > Toyota TSC7001G
- > Toyota TSC7203G
- > Toyota TSC7306G

Introduction

The Vehicle Power Supply Circuit Negative Surge Simulator TIS 60T1 is designed according to Toyota TSC0502G, which is capable of simulating the various types of negative surges discharged from the inductive system load. It can generate square wave (Fig. 2a) and burst waveform (Fig. 2b) with easy and intuitive setting design.

Features

- > 5.7" color touch screen;
- > Satisfy the test requirement of negative surge test specified in Toyota TSC0502G;
- > Built-in DC switch for spark test;
- > Ethernet and RJ45 interface for PC remote control and test report printing;

Application Areas

- > Automotive

Technical Parameters for Spark Surge: Square Wave and Burst Waveform		General Parameters
Output Voltage of Spark Surge (Vs)	-46 V(+1,-554 V) when connected to $25\Omega \pm 0.5\Omega$ load) -462 V(+10,-138 V)(when connected to $1k\Omega \pm 0.02k\Omega$ load)	Working Power Supply AC 110V/220V $\pm 10\%$, 50/60Hz $\pm 5\%$ (AC 220V 50Hz in mainland China by default)
Spark Surge Duration	Square Wave: 0.1~1.5 ms Burst Waveform: 50 $\mu s \pm 5 \mu s$	Ambient Temperature 5°C ~ 23°C
Single Pulse of a Burst	Rise Time tr: 5~10 ns Pulse Width td: 0.5 $\mu s \sim 1.0 \mu s$	Relative Humidity 25% ~ 70%
Negative Surge Peak (Vp)	-100 V ± 2 V (25 $\Omega \pm 0.5 \Omega$) -120 V ± 2 V (1 $k\Omega \pm 0.02 k\Omega$)	Atmospheric Pressure 86kPa ~ 106kPa
Time Constant of Negative Surge Waveform τ	0.02 s ± 0.001 s (25 $\Omega \pm 0.5 \Omega$) No requirement (1 $k\Omega \pm 0.02 k\Omega$)	Dimension 4U
Waveform Duration Time	1s	Weight Approx. 40 kg
Test Repetition	2s	
Counter	1-999	
DUT Load(optional)	30 A 50 A 75 A 100 A	

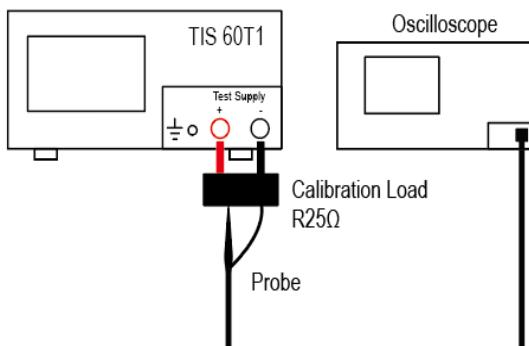
Accessories

Test Line, Power Line, Fuses (spare parts), User Manual

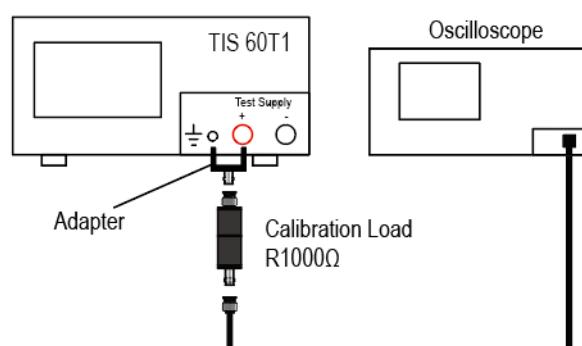
Options

Calibration Load
R25Ω: 25 $\Omega \pm 0.5 \Omega$
R1000Ω: 1 $k\Omega \pm 0.02 \Omega$
Autolab Control Software

Calibration Setup:



When connected to 25 ohm load



When connected to 1000 ohm load



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