Kewell

IGBT
Dynamic Test System

- Turn-on test (Pon, Eon)
- Turn-off test (Poff, Eoff)
- Reverse recovery characteristics of diode
- Short-circuit characteristics
- Gate-charge (QG) test

Summary

IGBT Dynamic Test System is composed of high precision programmable DC power supply, fixture unit, measurement control unit, drive control unit, protection unit, and other supporting test instruments. With software independently developed by Kewell, the system provides a stable and precise platform to test the dynamic characteristics of IGBT.

Advantages

Versatile test functions: single pulse test, double pulse test, gate-charge detection and short-circuit test

High reliability. Over-current protection.

Low stray inductance

High measurement accuracy

Integration of hardware and software. Complete safety protection.

Wide voltage output. Multiple inductive load gears. Satisfy the diverse requirements of dynamic testing.

Powerful monitoring software. Real-time monitoring and standard emergency procedures. Work steps and protection variables can be set. Simple and convenient. Comprehensive data recording and analysis capabilities.

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Specifications & Parameters

MX300D-1500-3000		
Output	Voltage range	0-1500V
	Voltage precision	0.1%FS
	Voltage resolution	0.1V
	Voltage measurement	LeCroy oscilloscope (resolution 12 bit, 4-channel, band width 350MHz, sampling rate 2.5GS/s)*; YOKOGAWA 701977 differential voltage probe: band width 50MHz, peak voltage 5000V
	Rated current	10-3000A
	Current precision	±10%rdg
	Current resolution	1A
	Current measurement	LeCroy oscilloscope (resolution 12 bit, 4-channel, band width 350MHz, sampling rate 2.5GS/s) *; CWT MINI 30B Rogovski coils*
Parameters	Work mode	Laboratory mode/Manual mode/Production mode
	Positive & negative gate voltages	-20~+20V
	Gate voltage precision	2%FS
	Gate voltage resolution	0.1V
	Inductor load	20μH; 50μH; 100μH; 200μH; 500μH; 1000μH; 2000μH
	Substrate temp. range	25-200℃
	Substrate temp. precision	0.5%FS
	Substrate temp. resolution	0.1℃
Reserved Interface	Fixture (adapter)	Customize according to IGBT models*
	External load	Supports connection to user-selected devices
	Gate resistance	Supports connection to user-selected devices
	Gate capacitance	Supports connection to user-selected devices
	Gate clamp	Supports connection to user-selected devices
	Collector clamp	Supports connection to user-selected devices
Protection	Over-current	Over-current point can be set. Fast protection activation.
	Input	Over-voltage, over-current, over-load, under-voltage, phase loss, etc.
	Output	Over-voltage, over-temperature, over-current, etc.
Specifications	Protection level	IP21 (indoor)
	Dimensions	850mm (D) × 1400mm (W) ×1960mm (H)
	Ambient Temperature	25℃±10℃

*The information above is only valid for independent test equipment. The test system is available with automated production line integration solution.
* With Rogovski coils, the stray inductance is below 50nH (system loop only, not including stray inductance of modules and fixtures); Pearson sensors is possible, but the stray inductance is higher than that of Rogovski coils.
*Support DBC testing requirements.

Software Interface

Customizable parameters that meet the versatile test demands of R&D. Test items can be edited and imported under production mode, highly efficient and convenient for production tests. Real-time display and recording of data and waveforms during the test. Automated generation of test reports.