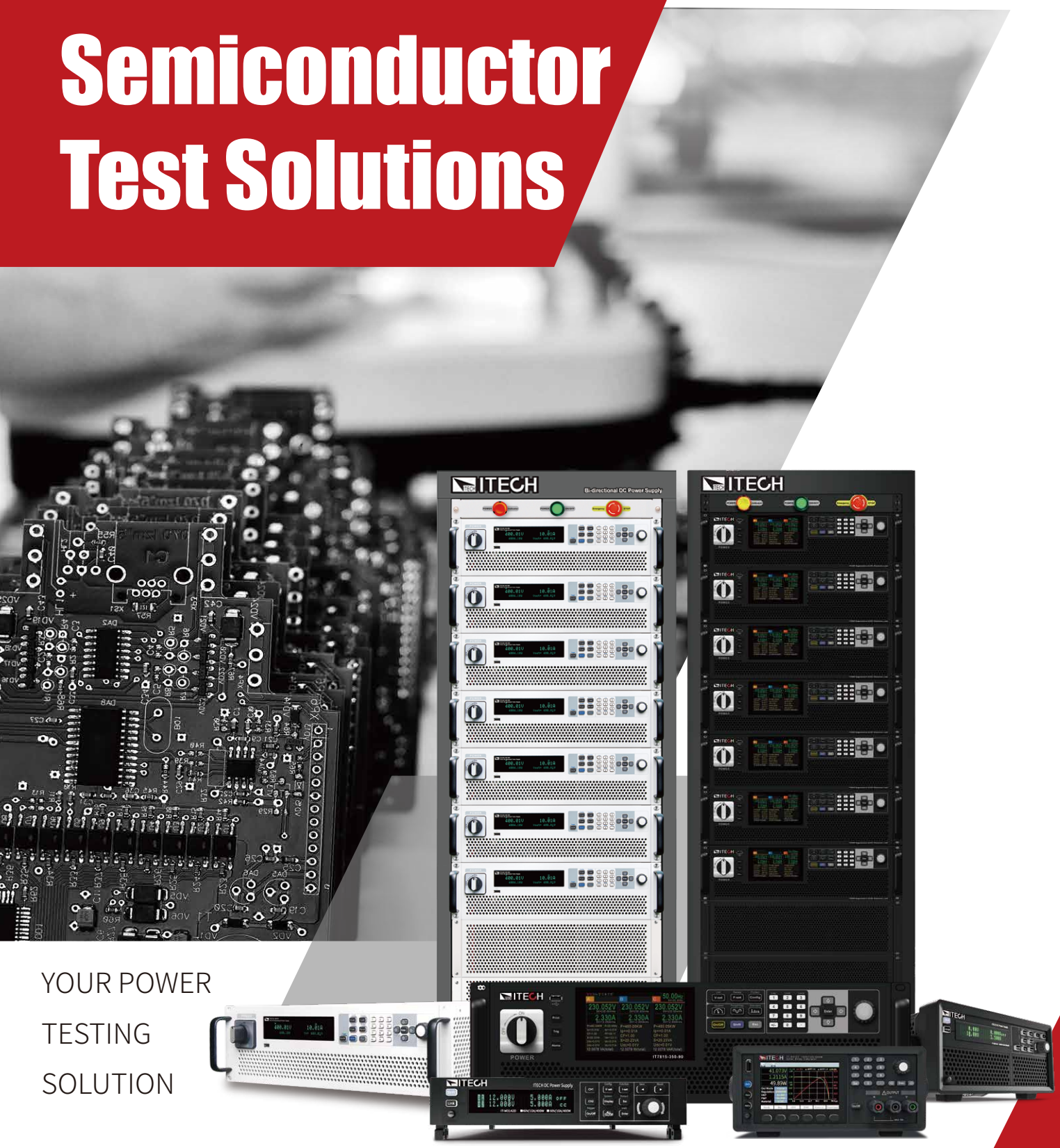
ITECH

YOUR POWER TESTING SOLUTION

Semiconductor Test Solutions



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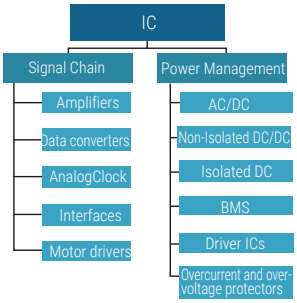
Equipment and facilities used in various sectors including automotive, green energy etc., are becoming smarter and electrified. A largely electrified and automated world places greater demands regarding electrical safety than ever before. To ensure safety while further reducing power consumption and size, semiconductor products with advanced power and analog technologies are often used. From wide bandgap. (WBG) materials such as silicon carbide (SiC) or gallium nitride. (GaN) , power MOSFETs and gate drivers to state-of-the-art imaging, depth sensing and connectivity devices, ITECH products can help semiconductor manufacturers and system integrators to test discrete semi conductor devices, power semiconductor devices, power management chips and other downstream products, not only to improve the system-level performance of semiconductor products, but also to improve design efficiency and facilitate market launch.

ITECH's main test areas for semiconductors are in the areas of automotive electronics, optical communications, new energy management, motor drives, LED drives for commercial and automotive lighting, and continued efforts in energy infrastructure, industrial automation, smart buildings and power conversion.

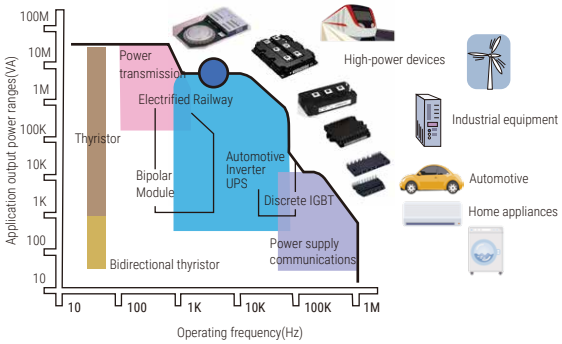
Classification and applications of IC



Leading Analog IC Suppliers($M)

2024 Rank	Company
1	Texas Instruments
2	Analog Devices
3	Infineon
4	ST
5	NXP
6	Skyworks Solutions
7	Qorvo
8	ON Semi
9	Microchip
10	MPS

Power Device Applications



Analog chips are divided into the power management chips and the signal chain chips, the former include LED drive circuits and linear regulators, ADC/DAC converters, CPU power monitoring circuits, lithium battery charging management chips, the overvoltage protection circuits, and load switches, etc. non-driven power management products. The latter include amplifier chips (such as operational amplifiers, audio amplifiers, video drivers, etc.), analog switches, and interface circuits, etc. It is widely used in the fields like communications, automobiles, computer peripherals, and consumer electronics, among them the consumer and communications sectors account for the largest proportions.

Systems that require power need the power management chips basically, this chip takes the largest proportion among all the analog chips, around 53%, it is an important component of power semiconductors.

Throughout the world's IDM leading or fabless companies of analog chips, ITECH already provides solutions directly or indirectly to these leading chip companies.

Power semiconductors are the core of power conversion and circuit control in electronic devices, mainly refers to semiconductor discrete devices that can withstand high voltage or high current, and also used to change the voltage and frequency in electronic devices, DC to AC conversion, etc. For the development of the third-generation semiconductors, which is led by SiC and GaN, thanks to the market demand for hybrid and electric vehicles, power supplies and photovoltaic (PV) inverters, they will enter a period of rapid development. For the Key Players in the Global Power Semiconductor Market, Including Infineon Technologies, Texas Instruments, ON Semiconductor, Fuji Electric, STMicroelectronics Semiconductor, Mitsubishi Electric Group, Semikron International, and Toshiba Corporation.

The development of these four fields has greatly promoted the demand for semiconductor equipment

IoT

Logic devices for computing and image processing

Big Data Storage

Memory chips for data storage

AI

Image sensors for light perceptionand imaging

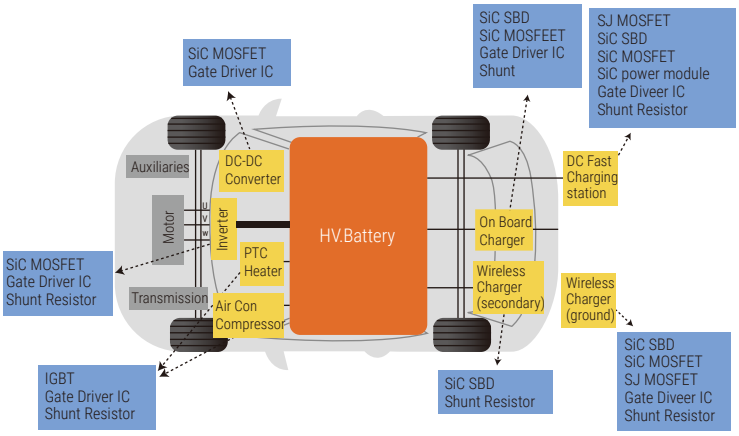
EV and Automatic driving

Power devices for efficient energy conversion and contro

DUT	Recommended products	Advantages
Automotive electronics		
E-fuse	IT6000C Bidirectional DC Power Supply	High power, high current, multiple steps
	IT-M3900C Bidirectional DC Power Supply	Low voltage high current
	IT8900G/L High Power DC Electric Load	High power, high current, built-in timer
Mobility inverter(IGBT, MOSFET power semiconductor)	IT6600C Bidirectional DC Power Supply	High speed bidirectional current, high power density
	IT7900EP Regenerative Grid Simulator	Four quadrant, simulate grid, high power density
BMS protection board	IT2600 Multi-channel Cell Simulator & Tester IT5241 Multi-Channel Temperature Simulator	Battery cell voltage, temperature and insulation simulation, up to 200 CHs simultaneous control
Industrial medical field (Sensor testing, manufacturing and production)		
3D Gyro Sensor	IT-M7700 High Performance AC Power Supply	Ultra-tiny size, three-phase application
Hall Effect Sensor	IT-M3900C Bidirectional DC Power Supply	Bidirectional power supply with Low voltage and high current
Semiconductor ion injection	IT-M3900C Bidirectional DC Power Supply	Tiny volume with low voltage and high current
Semiconductor sealing test	IT8700P+ Multi-Channel DC Electronic Load	Up to 16 channels, Master-Slave parallel, High-Precision testing
	IT2800 Graphical Source Measure Unit	6-in-one design, I-V characterization, DC & Pulse output mode
Solid State Relays, Photorelays	IT6000C Bidirectional DC Power Supply	High power, high current, multiple steps
	IT-M3900C Bidirectional DC Power Supply	Low voltage and high current
	IT8400 High Performance DC Electronic Load	High voltage, double power in loading short time
Laser semiconductor	IT-M3100 Ultra-compact DC Power Supply	Tiny, 400W~1500W, multi-channel
Chip and components aging	IT-M3900D DC Power Supply	Low voltage, high current; 1U 6 kW; CAN communication
	IT2700 Multi-channel Modular Power System	Source & Load modules; free software; up to 200-channel control
	IT-M3400 Bidirectional DC Power Supply	Multi-channel control; bidirectional source; compact 1/2 1U form factor
Consumer electronics		
LCD, LED, Mini-LED, AMOLED, OLED display driver IC	IT-M3200 High Precision DC Power Supply	Multi-channel, high precision, low ripple
	IT8912E LED Test DC Electronic Load	CR-LED mode, hardware LED emulation, fast and accurate
	IT2800 Graphical Source Measure Unit	6-in-one design, I-V characterization, DC & Pulse output mode
OLED power-up test	IT2700 Multi-channel Modular Power System	Multi-channel timing controllable, tiny size
Power management chip	IT8700P+ Multi-Channel DC Electronic Load	Up to 16 channels, Master-Slave parallel, High-Precision testing
	IT2705+IT27814 Multi-Channel Source	200 kHz sampling rate, power consumption analysis
Power and battery management chips	IT-M3400 Bidirectional DC Power Supply	Bidirectional current, compact Size, multi-Channel, battery simulation
	IT-M3600 Regenerative Power System	
	IT2700 Multi-channel Modular Power System	Multi-channel timing controllable, tiny size
IoT products	IT6400 Bipolar DC Power Supply	High-Accuracy battery simulation, bipolar power supply
	IT-M3200 High Precision DC Power Supply	Current feedback resolution up to 10 nA, compact Size
	IT2705+IT27814 Multi-Channel Source	200 kHz sampling rate, power consumption analysis
5G and communications		
Optical communication module	IT-N6300 Triple-Channel DC Power Supply	High precision, high speed, low noise

Power Semiconductor Testing

• Power semiconductors, IGBTs, MOSFETs, etc. are widely used in BLDC, high power DC-DC power supplies, home appliances, step drivers, inverters, etc.
• SiC MOSFETs can penetrate any application where IGBTs are currently used. Some common uses include high voltage switching power supplies, hybrid and electric vehicle chargers, electrified rail transportation, welding machines, lasers, industrial equipment, and high-temperature operating environments where high-temperature operation is critical.
• The two main applications for SiC are solar inverters and high voltage data centers. The high DC voltage helps reduce the size of wire, junction boxes, connectors, and minimize energy losses,thereby increasing efficiency. Most large photovoltaic systems currently are moving from 1kV DC bus to 1.5kV bus.
• Similarly, data centers using 380-V distribution networks can increase DC voltage to 800 V.



High-voltage components

Several aspects of the current-voltage relationship are studied under pulsed transient conditions. Figure 1 shows typical output characteristics at high power levels to show self-heating effect at T = 25°C .
Power semiconductors, such as IGBTs and MOSFETs are required to test the power cycle aging test and double pulse test, as shown in Figure 2, Airtex IT6000 and IT-M3900 series can meet the needs of customers with high voltage and high current.
Other life tests such as high temperature and high voltage reverse bias test, high temperature gate reverse bias test can use for IT-M3200, IT-M3100, and feed-back load IT-M3300 series for test.

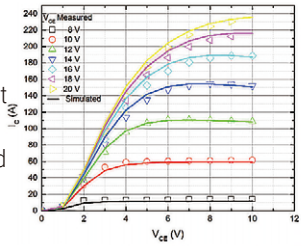


Figure 1. IGBT.Ic vs Vc curve

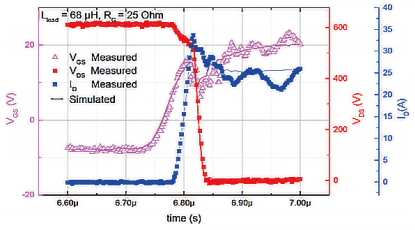
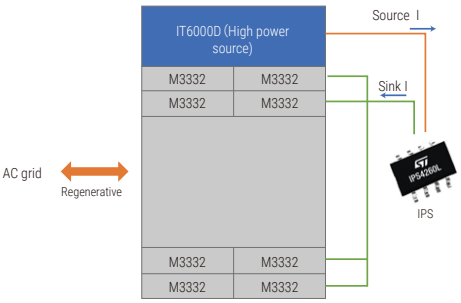


Figure 2. Double pulse circuits are widely used to evaluate switching characteristics of power semiconductors

IT-M3300 Regenerative DC Electronic Load

- Efficient power feedback capability, suitable for long time aging test
- Ultra-tiny, multi-channel synchronous control
- Temperature measurement function
- Comprehensive protection features

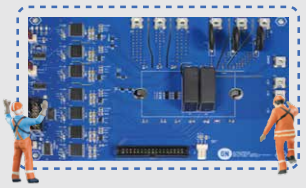
IT-M3300 Feed-back electronic load



Testing of Intelligent Power Switch (IPS)

Testing Requirements

The MOSFET PCB has a nominal AC voltage input of 3 x 400 V/231 V AC 50 Hz.
The nominal voltage in the DC link is 600 V. The maximum voltage in the DC link is 800 V.
An AC power supply with current limiting circuit is required.



IT7800 High Power AC/DC Power Supply

- 3u 15kVA
- AC, DC, AC+DC,DC+AC multi-mode output
- Single and three phase, inverted phase output can be set (15kVA or more)
- Arbitrary waveform generation, simulating the grid
- Programmable output impedance
- Built-in IEC standard test waveforms

IT6000 High Power DC Power Supply

- 80V~2250V, single machine 5kW~144kW
- High power density 3u 18kW
- Bi-directional power supply, source, load and Power System family
- List programming steps are not limited, with fast voltage rises and falls speed
- Adjustable output impedance
- Arbitrary waveform generation function

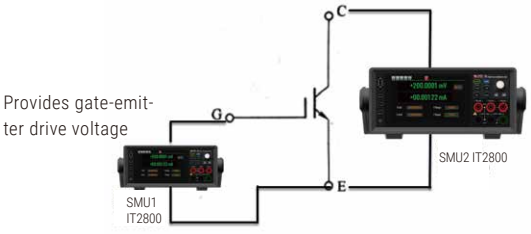
IT7800 High Power AC Power Supply

IT6000 Series High Power DC Power Supply

Output characteristic curve test

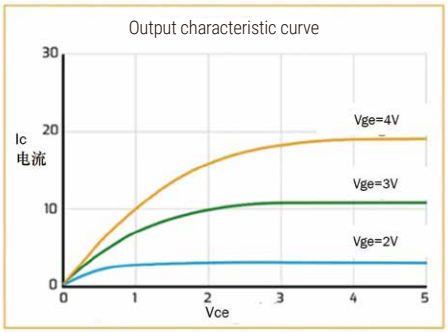
The I-V curve refers to the relationship between the collector current Ic and the collector-emitter voltage VCE when the gate-emitter voltage VGE is used as a parameter.

- Use SMU1 to set an initial VGE, SMU2 scans VCE, and measures the Ic collector current
- Set next value on SMU1 and scan SMU2 for different I-V curves



Provides gate-emitter drive voltage

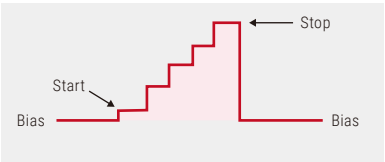
Use IT2800's sweep function to automatically scan Vce and measure electrode current Ic



Gate-emitter leakage current test

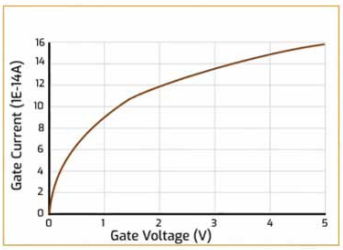
The gate drive leakage current of the IGBT device characterized by IGES is as small as possible, which has a small impact on the system efficiency. Taking a certain model from Infineon as an example, the indicator is about 100nA/VGE=20V

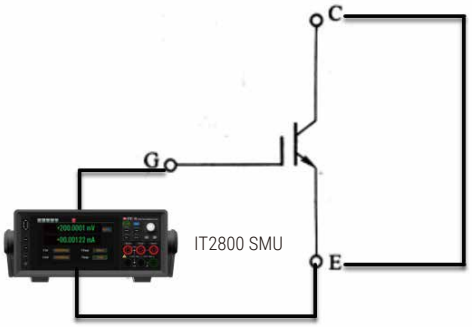
- Short-circuit collector C and emitter E, that is, VCE=0
- Scan VGE and the measured current is the gate drive leakage current.



Linear scan mode

Gate-emitter leakage current



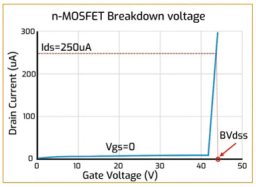


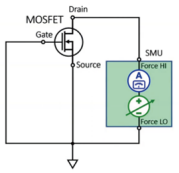
Collector-emitter breakdown voltage V(BR)CES

IT2801 SMU 1000V/1A/20W

V (BR) CES refers to the time when the Ic flowing through the collector reaches a specific value under a specific temperature and the gate G-emitter E is short-circuited.collector-emitter voltage. VCE in this case is the avalanche breakdown voltage V(BR)CES.

- Short-circuit gate G and emitter E, that is, VGE=0
- The SMU is connected between the collector C and the emitter E, and VCE is gradually increased through the Sweep linear scan mode of the SMU.
- The SMU measures the collector current Ic while scanning the VCE voltage. When Ic=0.2mA, the corresponding VCE is the breakdown voltage value.



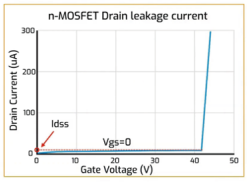


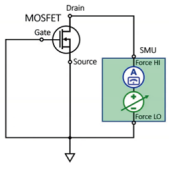
Gate-emitter leakage current test

ICES characterizes the forward blocking capability of IGBT devices. Generally, the smaller the collector leakage current, the better, which means the better off-state and blocking performance. On the contrary, the greater the collector-emitter leakage current, it will lead to the power product of blocking voltage * leakage current, that is, the power loss will increase, causing the tube toThe sub-temperature rises sharply, and finally thermal breakdown occurs.

IT2800 SMU

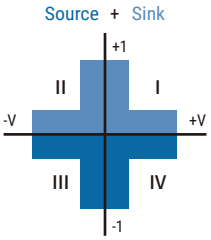
- Short-circuit gate G and emitter E, that is, VGE=0
- The SMU is connected between the collector C and the emitter E, and a certain VCE is applied. For example, if VCE=650V is set, then it will flow through the collector and the emitter current is ICES (uA level)



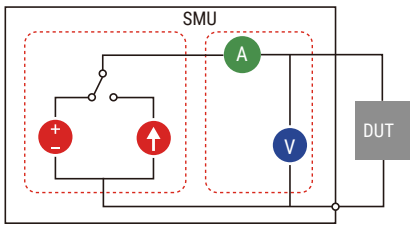


ITECH Product Recommendation

IT2800-High precision SMU



High precision four-quadrant power supply



6 in 1 unit

Voltage source, current source, 6 ½ digital multimeter, pulse generator, electronic load, battery simulator

ITECH's new generation source meter reduces test costs by more than 60% for you

IT2800 SMU Advantages

Test requirement	High efficiency	High measurement precision	Multiple functions	Data collection and storage
IT2800SMU	Parallel test capability	Multiple ranges, resolution up to 100nV/100fA	Sweep, Limit test, rich graphical display,four-quadrant /5 in 1 design	Up to 10us sampling rateLarge capacity cache of up to 1 million points

Applied to power semiconductor manufacturing and the supply chain

IT2806
200V/ 3A/ 20W with 10A pulse

IT2800:

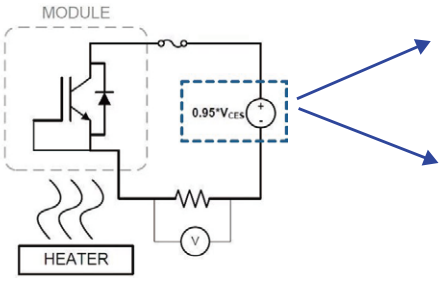
- Surface resistivity test of SiC raw materials
- Wafer electrical performance testing
- Discrete device performance testing
- Performance testing of power modules

Test item	Test instrument	DUT
Parametric test	Power device static parameter testing system	Diode, MOSFET, IGBT testing
	IT-M3900 series high power DC power supply	
Limited ability test	Surge current test system	
	Avalanche endurance test system	
Burning test	Power cycle aging test system	
	BSS2000 series battery simulator software	
	HTGB high temperature gate bias test system	
	IOL intermittent life test system	

High Temperature and High Voltage Reverse Bias Test (HTRB) - Reliability Test

Test purpose Test the reliability of IGBTs and FRDs (fast recovery diodes) in high-voltage applications such as power systems and rail transit

Test condition 1000 hours, 95%Vce(max), 125°C<Tc<145°C ICES, V(BR)CES, IGES, VGE(th) and VCE(on) are the monitored DC parameters.



Requirement Rated voltage, I<1A, 0.5A (high voltage, low current)

Rated voltage:600V/650V/1200V....2000V

ITECH Product	Advantage
IT2800SMU	High power/high voltage
IT6700H	SCPI
IT-M3100	Programmable V&I

High Temperature Gate Reverse Bias Test (HTGB) - Reliability Test

Test purpose Complying with IEC 60747-9 regulations, verifying the stability of gate leakage current, the test object is the IGBT gate oxide layer.
Meets MIL-STD-750.AEC-Q101 and detects changes caused by random oxide defects and ionic oxide contamination.

Test condition 1000 hours, VGE= ±20V, Tj= Tj(max) IGES, VGE(th) and VCE(on) are the monitored DC parameters.

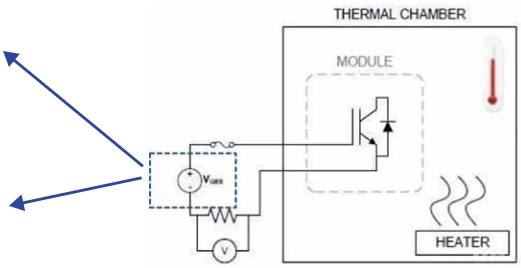
Requirement High-precision current measurement

ITECH product

IT2800 SMU

Advantage

SCPI, four-quadrant, high-accuracy current measurement resolution: 1fA



ITECH high-precision current measurement power supply – IT-M3200 and IT6400 series

ITECH Product IT-M3200 1U half rack

- Resolution to 10nA
- Four ranges: Low/Medium/High/Auto
- Seamless measuring switch
- CC/CV priority
- Up to 0.05% +100nA current measurement accuracy

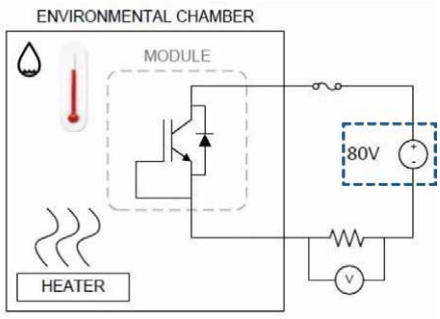
ITECH Product IT6400 2U half rack

- Current resolution up to 1nA (IT6411S), 100nA (other models)
- Supports positive and negative voltage output, no need to manually change polarity
- 0.05%+50nA / 0.05%+2uA current accuracy

High humidity, temperature and high voltage reverse bias test (H3TRB) - Reliability Test

Test purpose Test the power supply's moisture resistance

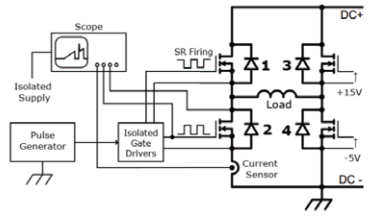
Test condition 1000 hours, environment: 85°C, humidity: 85%, VGE=80% rated voltage, VGE=0 (short circuit)
Failure occurs when leakage current is high and power dissipation causes the device to enter thermal runaway.



According to IEC 60068-2-67, the stress voltage should be increased from 80 V to 80% of the rated voltage (for example: 1360 V and 960 V for 1700 V and 1200 V rated voltage equipment respectively).

Application 1

Double pulse test of IGBT modules on EV

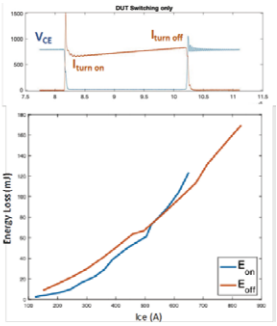


ITECH Product: IT6000C bidirectional DC power supply

Advantages: High voltage, high power, bidirectional, programmable, CV/CC loop speed adjustable

DC bus voltage can be adjusted using a variable DC power supply

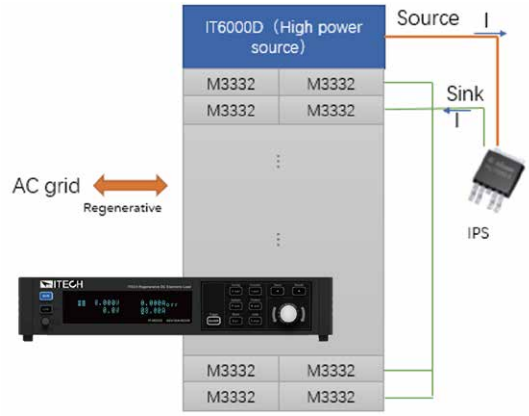
Vce (V)	I_turn on (A)	I_turn off (A)	E_on (mJ)	E_off (mJ)
150	122	150	2.57	8.97
200	161	202	4.28	15.6
250	210	254	6.91	22.6
300	245	303	10.07	30.3
350	281	355	16.29	40.7
400	328	407	22.4	52.18
450	361	457	29.4	63.55
500	390	495	39.3	66.74
550	440	557	50.3	82.18
600	505	620	61.3	98.65
650	521	675	72.6	113.65
700	575	715	88.67	131.99
750	615	767	104.05	149.14
800	650	830	123.58	169.66



Switching losses of IGBT modules at different voltage and current levels

Application 2 Smart power switch IPS aging test (IPS consists of MOSFET or IGBT)

A new generation of regenerative aging test solution for low-power power ICs



Multi-channel IPS aging test system

IPS

Table 1 Product Summary

Parameter	Symbol	Values
Operating Voltage	$V_{S(OP)}$	5.8 V … 18 V
Extended supply voltage range	$V_{S(EXT)}$	3.1 V ...27 V
Maximum ON-State Resistance (T_j = 150 °C)	$R_{DS(ON)}$	5 mΩ
Nominal Load Current (T_A = 85°C)	$I_{L(NOM)}$	24 A
Typical current sense differential ratio	dk_{ILIS}	18000
Minimum short circuit current threshold	$I_{CL(0)}$	60 A
Maximum reverse battery voltage	$-V_{S(REV)}$	-16 V
Maximum Stand-by Current at T_j = 25 °C	$I_{vs(off)}$	4 µA

parameters of single unit IPS

ITECH test solution

- High power density DC power supply IT6000C-80V
- Electronic load for aging test: IT-M3332 (60V/30A/800W)
- The 37U cabinet can integrate up to 64 IT-M3300s to improve testing efficiency.
- Regenerative design, efficiency up to 92%

Advantages of ITECH's solution for power IC aging test

- The minimum power of the regenerative load currently on the market is about 3.5kW. For Power IC aging of several hundred watts, their test cost is too high.
- If multiple Power ICs share a regenerative load, the aging test data of a single IPS cannot be obtained.
- IT-M3300 regenerative electronic load has high power density and a maximum power of 800W in only 1U height. It is suitable for independent aging testing of IPS.
- IT-M3300 supports up to 16 units connected in parallel. This enables higher power testing too if needed.
- Built-in rich RS232/CAN/LAN communication interface, communication speed is fast and stable.
- The feedback efficiency reaches up to 92%, saving electricity costs for you.

ITECH Product IT-M3300 low power regenerative electronic load 200W/400W/800W 1U half rack

IT-2800 Source Meter

Coming soon

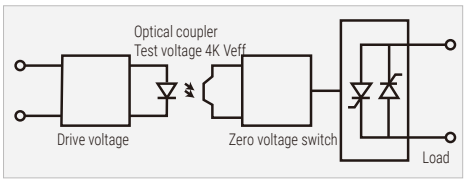
- Set five equipment in one: voltage source, current source, voltmeter, ammeter and ohmmeter
- High precision 4 quadrant output, support 2 line and 4 line measurement
- Resolution up to 100fA, 6 1/2 Settings and display resolution
- Pulse output capacity (200V and 40V models)

Solid State Relay

Solid state relay, abbreviated SSR, is a new type of solid-state electronic components with relay characteristics, consisting of semiconductor components to replace traditional electrical contacts as switching devices. Single-phase SSR is a four-terminal active device, in which there are two input control terminals and two output terminals. There is optical isolation between input and output terminals. When DC or pulse signals are added to the input terminal to a certain current value, the output terminal can change from the off state to the on state. Solid state relay currently has been widely used in computer peripheral interface devices, electric heating thermostat system, CNC machinery, remote control systems, industrial automation device; Signal lamp, mixer, stage lighting control system; Instrument and meter industry, medical instruments, photocopiers, automatic washing machines; Automatic fire protection system, security system, as well as power capacitor switch with compensated power factor and so on. In addition, SSR are widely used in chemical, coal and other need explosion-proof, moisture-proof, anti-corrosion occasions.

SSR and Heat Sink

Over current is the main cause of permanent damage to SSR internal output SCR. Many loads produce a large surge current at the moment they are switched on. Therefore, when selecting solid state relay, it is extremely important to ensure a certain current margin.



Functional Modules of Solid State Relays

IT-M3900 High Power DC Power Supply

- Low voltage ,high current and wide range output, 10V can output 510A, high voltage can reach to 1500V
- Bidirectional current
- Synchronous multi-channel, system construction
- High power density, 6kW in 1U

IT-M3900 High Power DC Power Supply

IT8400 High Performance DC Electronic Load

- Double power loading in short time (< 3s), save money for customers
- Faster dynamic loading speed, simulating driving conditions
- Master and slave parallel connection, more flexible on power and easier for expansion
- High voltage to 1200V, high power up to 600 kW, it is suitable for EV relays testing

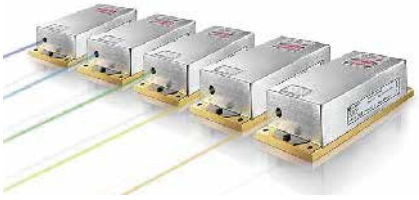
IT8400 High Performance DC Electronic Load

Laser Test

Customer Laser chip manufacturers, equipment manufacturers that package laser chips, such as Lidar, laser medical beauty equipment, laser display etc., driverless technology and other fast developing laser areas.

Test Requirements Lidar has extremely high requirements for power supply, and Lidar supplies power with constant current.

Traditional Test The traditional power supply defaults to CV loop priority, so the speed of suppressing current overshoot at the moment of startup is slow.



IT-M3100D Dual-Channel DC Power Supply
IT-M3100 Ultra-compact Wide Range DC Power Supply

Multi-channel, 200W~1500W, With CC / CV priority, users can adjust the loop speed according to test requirements. For example, setting it in CC priority mode can quickly suppress the current overshoot.

IT-M3100D Dual-Channel DC Power Supply

IT-M3100 Ultra-compact Wide Range DC Power Supply

IT6900A DC Power Supply

- Special model, no current overshoot
- Switch + linear structure, low ripple, low noise

Hall Current Sensor

Hall effect principle, using the isolation method to convert the current within ±100A into linear voltage output, suitable for a variety of isolated current sampling occasions, such as DC input side of photovoltaic string inverter , MPPT (maximum power point) tracking current detection, bus current and each bridge arm current sampling in industrial inverter devices, UPS and Server power and isolated current sampling in charging station.

Measurement Method Of Currentmagnetic Field

Measuring range: 0A~±2000A

Advantage: no heat generation, no energy loss
Disadvantages: large footprint

IT-M3900B/C Series Regenerative Power System

- Modular design, single unit current up to 510A
  Current up to kA class when connected in parallel
- High power density, 5kW in 1U size
- Bi-directional current

IT-M3900C Power Supply (CC mode)

Photovoltaic Power Optimizer

Power optimizer industry standard: IEC62109-1 IEC61000-6-1 IEC61000-6-3 NB/T 42143

Regulatory Testing Requires —— Basic Performance And Functionality

- Static MPPT efficiency test
- Dynamic MPPT efficiency test
- Transition Efficiency
- Input/output parameter test
- Rated power voltage range test
- Control component output power
- DC input overvoltage protection/overload protection test
- Reverse polarity protection
- Short circuit protection test
- Automatic startup/shutdown test
- Overcurrent protection function test

Output power range:300W~1100W
Voc voltage range:60V~125V
Voltage rang:60V~80V

Product
IT-M3300 Regenerative DC electronic load
IT-M3800 Regenerative DC electronic load
IT-M3400 Bi-directional DC power supply
IT-M3900C Bi-directional DC power supply
SAS1000L PV simulation software

LCD, LED, Mini-LED, AMOLED, and OLED Display Drive IC

Battery Simulation

IT-M3400 Bidirectional DC Power Supply
IT-M3600 Regenerative Power System
IT6400 Series Bipolar DC Power Supply / Battery Simulator

Test Advantages

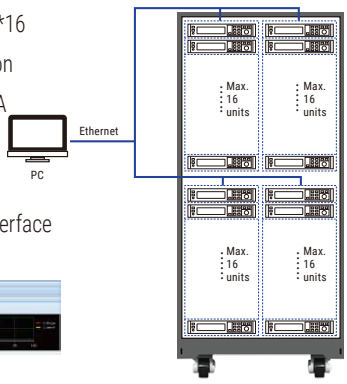
- Maximum output power of single channel up to 15 W , output voltage max. ±60 V, output current max. ±10A
- Bipolar dual-range output
- Accurate Battery Simulation
- Ultrafast transient response time < 20 μs
- Current display resolution up to 1nA
- Waveform display function

R&D Test and Aging Test

IT-M3100D dual-channel DC power supply
IT-M3100 Ultra-compact Wide Range DC Power Supply
IT-M3200 High Precision DC Power Supply
IT-M3300 Regenerative DC Electronic Load

Test Advantages

- Multi-channel design supports maximum 16*16 channels with synchronous operation function
- High precision and high resolution, 1mV/1mA
- Current readback is up to 10nA
- 1U half rack only
- Support various optional communication interface



Ki Cordless Kitchen Standard

Under the new Ki Cordless Kitchen Standard, wireless charging transmitters can be concealed under the countertop, and the cordless transmitter can be placed simply and intuitively on the countertop to receive up to 2.2kW of power safely and efficiently .
Wireless Power Consortium members include Apple, ASUS, Belkin, Bosch, Canon, CPS, Dell, Delonghi, Delphi, E.G.O., Google, Haier, Huawei, Ikea, Lenovo, LG, MediaTek, Mophie, NXP, Panasonic, Philips, Samsung, Sony, TDK, Verizon Wireless, Xiaomi, and OPPO, and so on.

"Ki cordless kitchen"

IT7800 AC Power Supply
IT8200 AC Electronic Load(coming soon)

- Meet customer demand of 1.5KW ~ 2.4KW
- High power density
- Simulate grid fluctuation

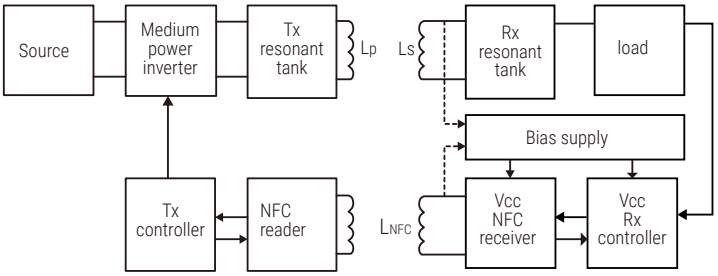
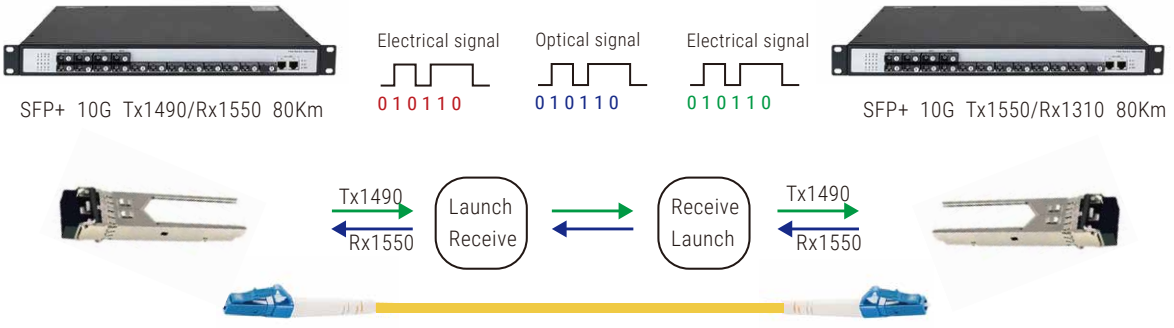


fig.3 Power conduction and reception

5G Optical Module Test

Optical fiber interconnection in the digital economy era, if there is no optical module, the data center cannot operate at all. The application of cloud computing and big data technologies has driven the acceleration of the construction of global super-large data centers, and has led to an increase in the industry's demand for high-speed optical modules, which has promoted the iterative update of optical modules. At the same time, the construction of 5G network is poised to take off, prompting the telecom optical module market to enter a rising cycle with broad prospects.
The main application range is Ethernet, Fibre Channel, SDH and SONET, etc., and can be used in equipment such as optical transceivers, switches, optical routers and optical network cards.
The electrical parameters of the chip also follow the electrical properties of the semiconductor. The threshold operating voltage is generally 0.7V, rated about 3V, and some COB chips can reach about 16V; The current is usually tens to hundreds of mA, but the maximum COB chip can reach 16A, and may be higher in the future;
The requirements of the optical module on the test equipment are as follows: low power, high speed, high precision, low ripple, and full protection function etc.;



Test Requirements

The dynamic response time of the power supply should be less than 20us, the voltage rising and falling time should be less than 5ms, and the current accuracy should be at mA level.

IT6341C Dual Channel High Precision DC Power Supply (5V/16A 16V/5A)

- High resolution, high precision and high stability
- Over voltage protection, over heat protection
- Series and parallel working mode, used to improve the output capacity of voltage or current
- High resolution up to 1mV/1mA
- Widely used for testing in various fields such as optical communication module, semiconductor, chip and integrated circuit, industrial ATE, laboratory, production line, maintenance, etc.

IT6341C Dual channel high precision DC power supply

ITECH

YOUR POWER TESTING SOLUTION

This information is subject to change without notice.For more information, please contact ITECH.

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