

## SWITCHING TIME TEST SYSTEM スイッチングタイムテストシステム

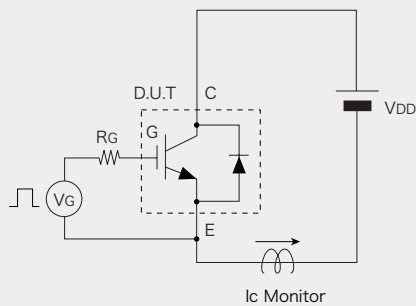
## SWQS2050ZZ

2000V  
5000A5000A  
(Short Circuit)

- SWQS2050ZZ has high-power specification of 2000V/ 1000A (5000A for short-circuit measurement) and is a system that supports switching characteristic, short-circuit measurement as well as QG measurement. Measuring section uses a thermo stream and can be tested in environments ranging from minus temperatures to high temperatures.
- SWQS2050ZZZ は 2000V/1000A (短絡測定時 5000A) のハイパワー仕様で、スイッチング特性、短絡測定の他、QG 測定まで対応したシステムです。測定部をサーモストリームを使用し、マイナス温度から高温までの環境で試験することが可能です。

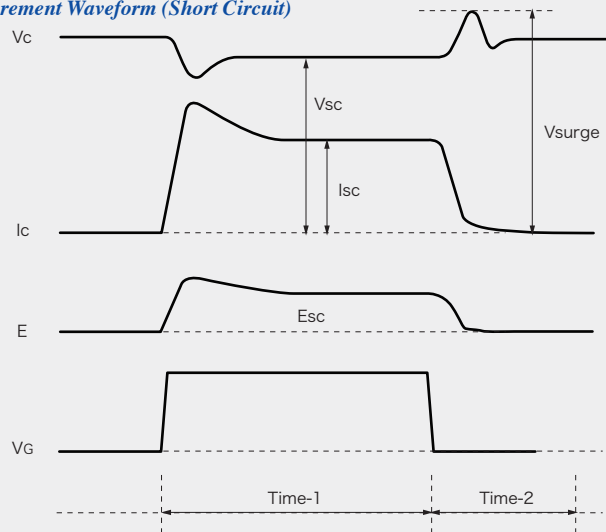


## Fundamental Test Circuit (Short Circuit)



$I_c$  current is controlled by  $V_g$  voltage.  
Ic電流値はVg電圧で制御

## Measurement Waveform (Short Circuit)



MODEL	SWQS2050ZZ	
TEST ITEMS		
R-LOAD/L-LOAD SWITCHING	$I_c$ (ld), $t_d$ (on), $t_r$ , $t_d$ (off), $t_f$ , $e$ (on), $e$ (off)	
di/dt	Irr, trr, Qrr, dif/dt, dir/dt, Vsurge	
AVALANCHE	Ilava, Vava, Eava, Vsurge	
QG	Qgs, Qgd, Qg, Vth	
SHORT CIRCUIT ASO	Vsc, Isc, Vsurge, Esc	
SETTING RANGE		
MEASURABLE DEVICE (Nch Only)	MOS-FET, IGBT, DIODE, SiC/GaN	
MEASUREMENT RANGE	000.0 $\mu$ s~9999.9 $\mu$ s	
VDD	20V~2000V	1V STEP
Id(Limit)	1A~1000A(Short Circuit:5000A)	1A STEP
VGP/VGN(VGF/VGR)	$\pm$ 00.00V~ $\pm$ 30.00V	0.01V STEP
IG	0.1mA, 1mA, 10mA(each select)	
Time-1	0000.0 $\mu$ s~9999.9 $\mu$ s	0.1 $\mu$ s STEP
Time-2	000.0 $\mu$ s~999.9 $\mu$ s	0.1 $\mu$ s STEP
Time-3	00.0 $\mu$ s~99.9 $\mu$ s	0.1 $\mu$ s STEP
Time-4	0000 $\mu$ s~9999 $\mu$ s	1 $\mu$ s STEP
BINNING		
OPEN/SHORT CHECK(IGBT)	Vg ON: $V_{CE} \geq 10V$ ...OPEN, Vg OFF: $V_{CE} \leq 1/2 V_{DD}$ ...SHORT	
OPEN/SHORT CHECK(DIODE)	$V_F \geq 5V$ ...OPEN, $V_{KA} \leq 10V$ ...SHORT	
BIN INDICATION	ERROR, PASS, LIMIT-FAIL, OPEN, SHORT	
DIMENSIONS & WEIGHT		
POWER CONTROL UNIT	550(W) $\times$ 860(D) $\times$ 1700(H)~290kg	
MEASUREMENT UNIT	723(W) $\times$ 1000(D) $\times$ 2352(H)~385kg	