MOS-FET DIODE

di/dt TESTER di/dtテスター

GST610Z

600V
100A

MOS-FET DIODE

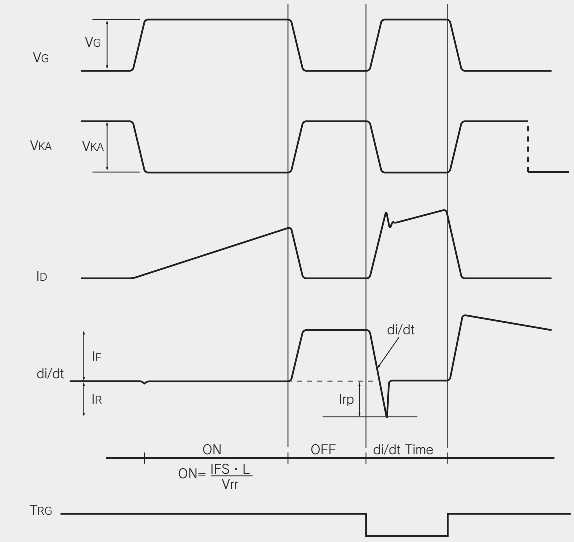
di/dt TESTER di/dtテスター

GSTM410Z

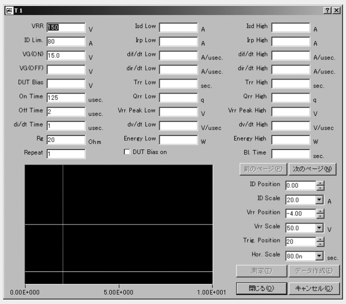
400V
100A

- GST610Z & GSTM410Z has been designed to seek and judge di/dt characteristic with software by using reverse recovery waveform of MOS-FETs and diodes or break waveform with digital oscilloscope. It has OPEN/SHORT test and driver check functions to improve reliability.
- MOS-FETやダイオードの逆回復波形や破壊波形をオシロスコープから取り込み、ソフトウェアでdi/dtを求めその特性を判定します。OPEN/SHORT試験、ドライバーチェック機能もあり信頼性を向上させています。

Reference Waveform



Software Display



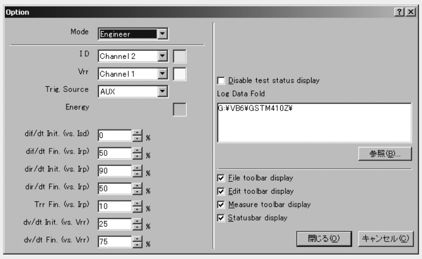
VRR 150 V
ID Lim. 80 A
VG(ON) 15.0 V
VG(OFF) V
DUT Bias V
On Time 125 usec.
Off Time 2 usec.
di/dt Time 1 usec.
Rg 20 Ohm
Repeat 1

Isd Low A
Irp Low A
dif/dt Low A/usec.
dir/dt Low A/usec.
Trr Low sec.
Qrr Low q
Vrr Peak Low V
dv/dt Low V/usec
Energy Low W
☐ DUT Bias on

Isd High A
Irp High A
dif/dt High A/usec.
dir/dt High A/usec.
Trr High sec.
Qrr High q
Vrr Peak High V
dv/dt High V/usec
Energy High W
Bl. Time sec.

ID Position 0.00
ID Scale 20.0 A
Vrr Position -4.00
Vrr Scale 50.0 V
Trig. Position 20
Hor. Scale 80.0n sec.

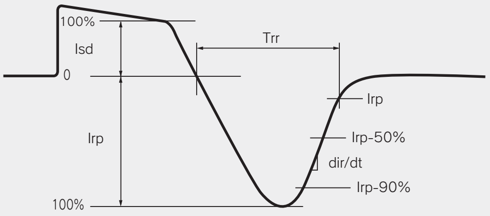
Measurement Point Setting



Mode Engineer
I D Channel 2
Vrr Channel 1
Trig. Source AUX
Energy
dif/dt Init. (vs. Isd) 0 %
dif/dt Fin. (vs. Irp) 50 %
dir/dt Init. (vs. Irp) 90 %
dir/dt Fin. (vs. Irp) 50 %
Trr Fin. (vs. Irp) 10 %
dv/dt Init. (vs. Vrr) 25 %
dv/dt Fin. (vs. Vrr) 75 %

☐ Disable test status display
Log Data Fold
G:¥VB6¥GSTM410Z¥
☑ File toolbar display
☑ Edit toolbar display
☑ Measure toolbar display
☑ Statusbar display

Reference Waveform (di/dt measurement regulation [di/dt測定規定])

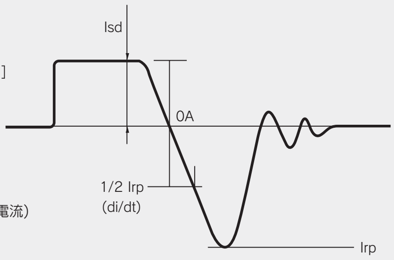


di/dt [Isd · (95%~0%) ⇔ Irp · (0%~95%)]
Fall(立下り) Fall(立下り)

Trr [0~Irp · (95%~0%)]
Rise(立上り)

dir/dt [Irp · 90% ⇔ Irp · 50%]
Rise(立上り) Rise(立上り)

Isd : Diode forward current(ダイオードの順方向電流)
Irp : Irr peak current(Irrのピーク電流)



MODEL	GST610Z	GSTM410Z
Vrr VOLTAGE	30V~599V	30V~400V
GATE VOLTAGE	ON +0V~+39.9V OFF -0V~-39.9V	ON +0V~+39.9V OFF -0V~-39.9V
D.U.T. BIAS	00.0V~+15.0V 00.0V~-15.0V	00.0V~+39.9V 00.0V~-39.9V
GATE PULSE	ON 2.0μs~999.9μs OFF 1μs~999μs	ON 1μs~999μs OFF 1μs~999μs
di/dt TIME	1μs~999μs	1μs~999μs
Rg	0.1Ω~99.9Ω	1Ω~999Ω
I_D LIMIT	0.1A~99.9A	0A~99A
PRE/POST CHECK	OPEN(V_{SD}(V_F)＞3V) SHORT(V_{DSS}(V_R)＜Vrr Setting×80%)	OPEN(V_{SD}(V_F)＞3V) SHORT(V_{DSS}(V_R)＜Vrr Setting×80%)
DRIVER CHECK	OPEN(V_{DS}(SAT)＞Vrr Setting×20%) SHORT(V_{DSS}＜Vrr Setting×80%)	OPEN(V_{DS}(SAT)＞Vrr Setting×20%) SHORT(V_{DSS}＜Vrr Setting×80%)
DIMENSIONS & WEIGHT		
MAIN UNIT	430(W)×550(D)×245(H)…34kg	430(W)×700(D)×245(H)…42kg
HEAD BOX	150(W)×660(D)×250(H)+Coil…22kg	250(W)×640(D)×224(H)+Coil…21kg