

FUJI IGBT Modules U Series

Short circuit vs V_{GE} characteristics 1200V

Sample: 2MBI150UA-120, 2MBI200UB-120, 2MBI300UD-120

Conditions: $V_{DC}=600V$

$+V_{GE}=8, 10, 13, 15, 18V$

$-V_{GE}=15V$

$T_j=125^{\circ}C$

R_G (Recommended value) = 2.2 Ω (2MBI150UA-120)

3.0 Ω (2MBI200UB-120)

1.1 Ω (2MBI300UD-120)

Results: $V_{GE} - I_{SC}$ characteristics Fig. 1

Definition of I_{SC} : Saturated current at short circuit condition

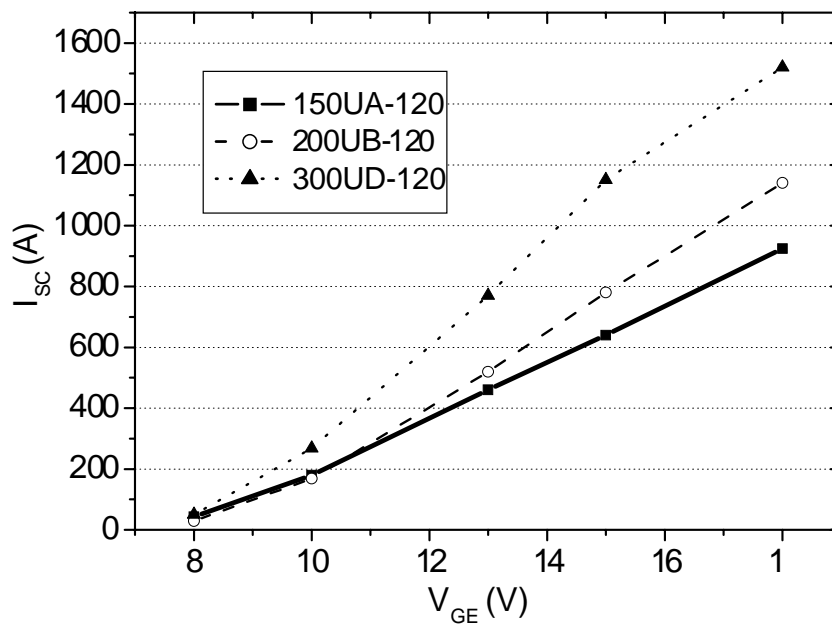
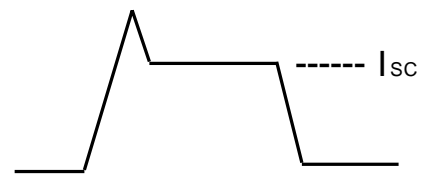


Fig. 1 $V_{GE} - I_{SC}$ characteristics

Waveforms: 2MBI150UA-120 Fig. 2 to Fig. 6

2MBI200UB-120 Fig. 7 to Fig. 11

2MBI300UD-120 Fig. 12 to Fig. 16

2MBI150UA-120

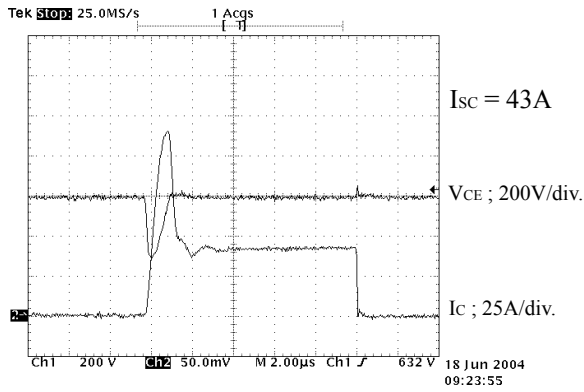


Fig. 2 $V_{GE}=8V$

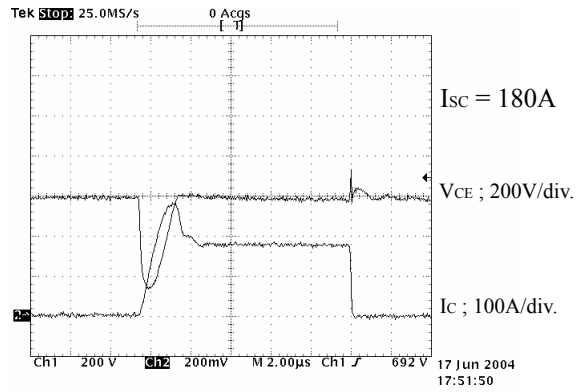


Fig. 3 $V_{GE}=10V$

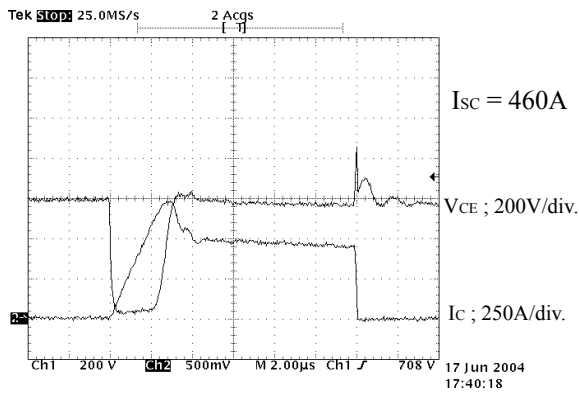


Fig. 4 $V_{GE}=13V$

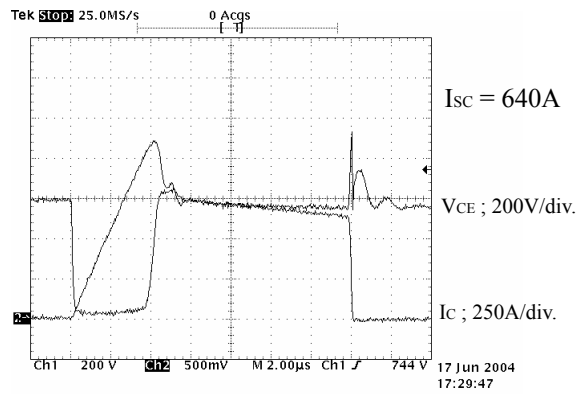


Fig. 5 $V_{GE}=15V$

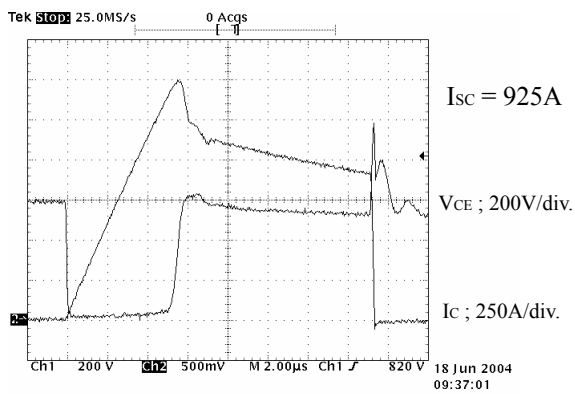


Fig. 6 $V_{GE}=18V$

2MBI200UB-120

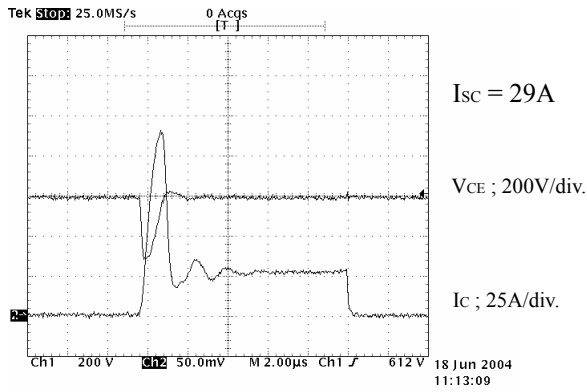


Fig. 7 $V_{GE}=8V$

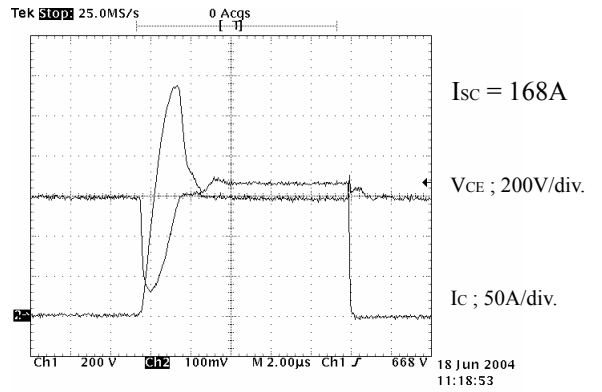


Fig. 8 $V_{GE}=10V$

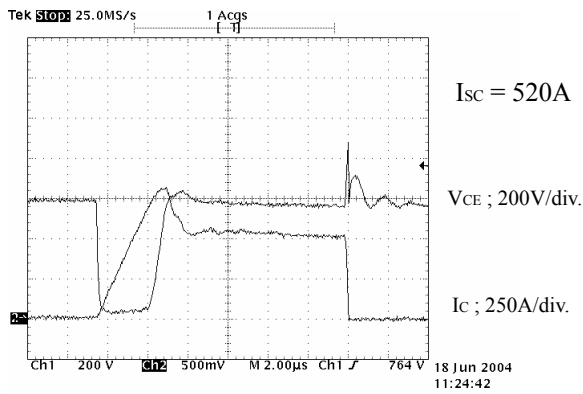


Fig. 9 $V_{GE}=13V$

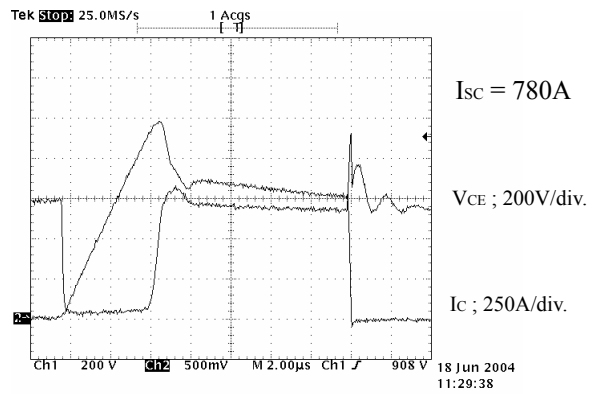


Fig. 10 $V_{GE}=15V$

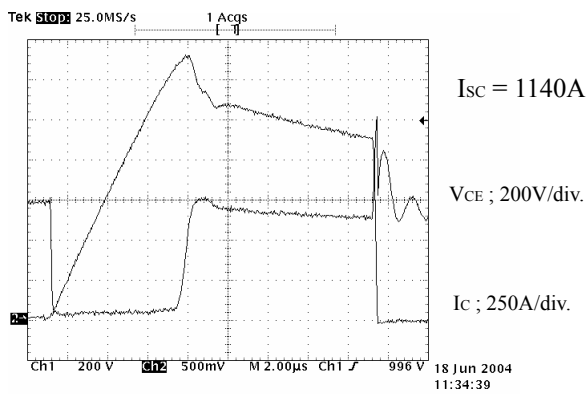


Fig. 11 $V_{GE}=18V$

2MBI300UD-120

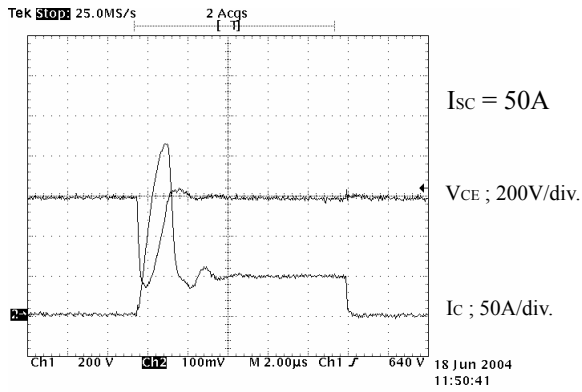


Fig. 12 $V_{GE}=8V$

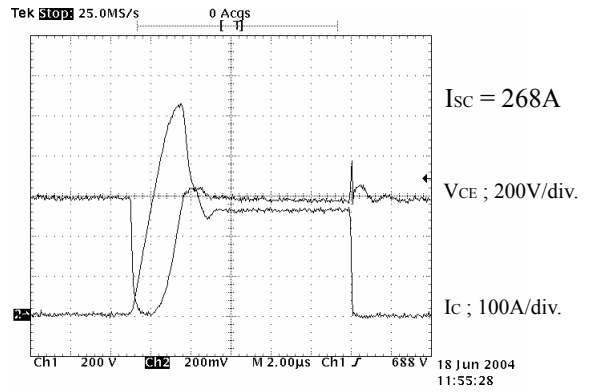


Fig. 13 $V_{GE}=10V$

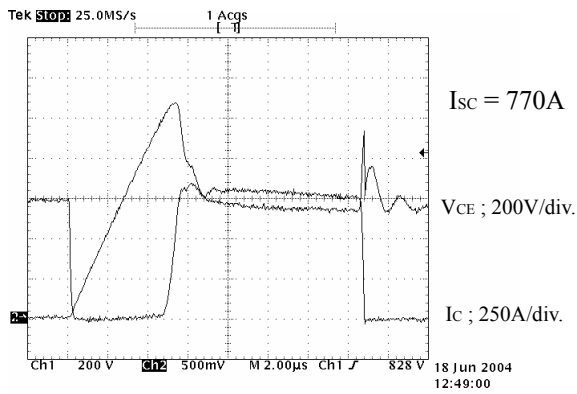


Fig. 14 $V_{GE}=13V$

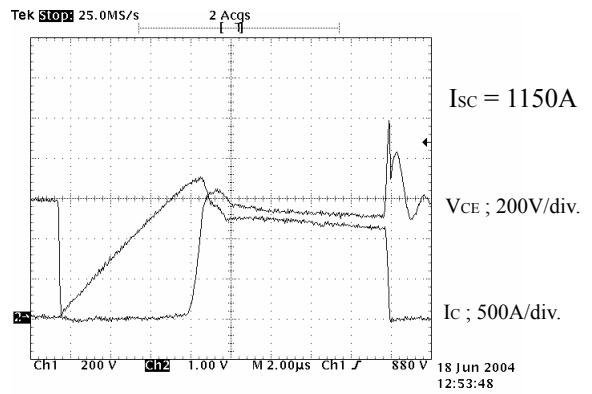


Fig. 15 $V_{GE}=15V$

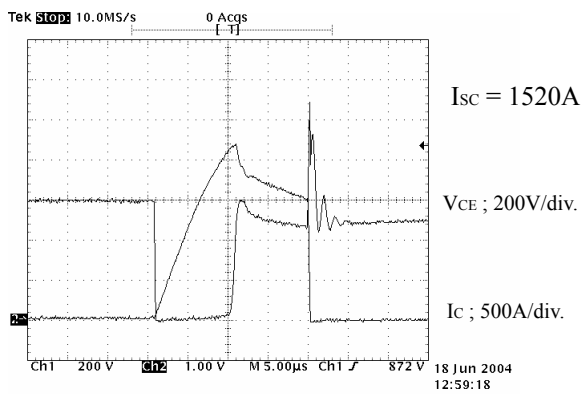


Fig. 16 $V_{GE}=18V$

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