

## — RB-IGBT 600V —

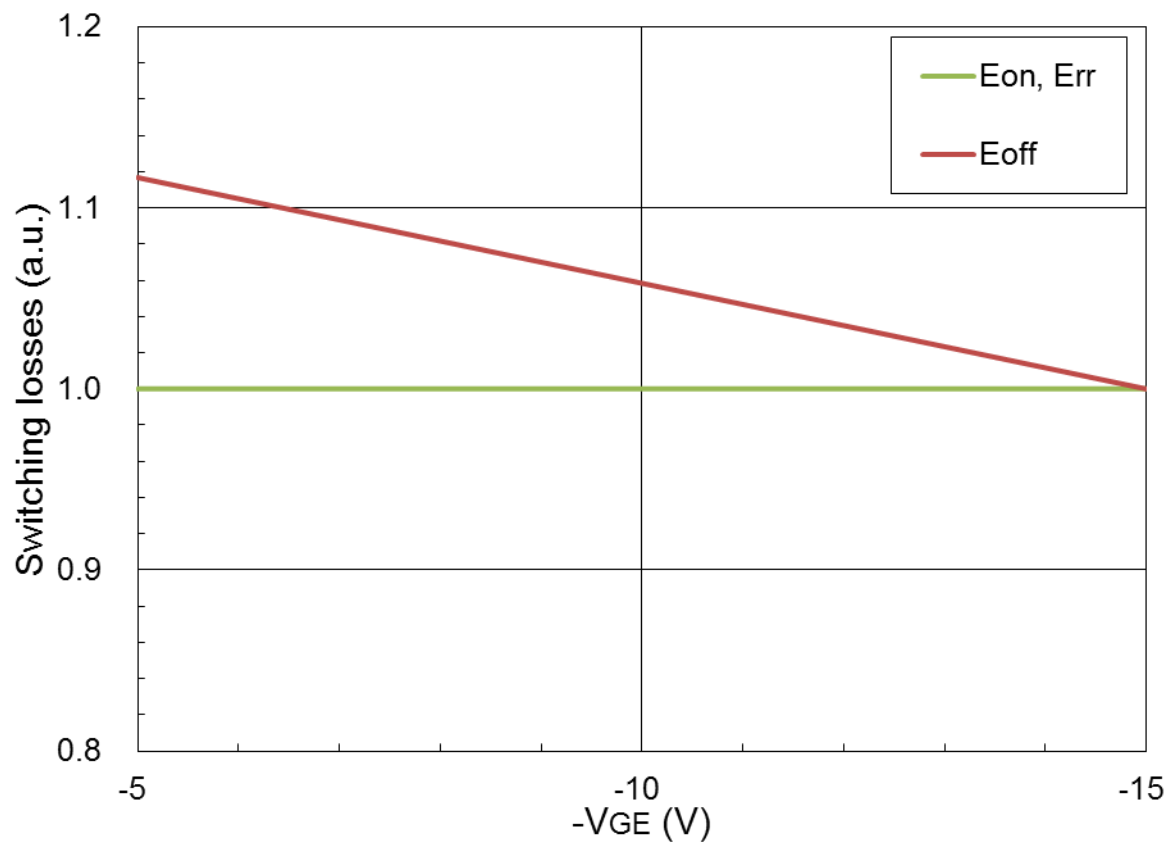
### Switching loss characteristics vs. -V<sub>GE</sub>

Measured module: 4MBI300VG-120R-50 (RB-IGBT=600V)

Measured condition: A-mode (T<sub>2</sub>=switching)

T<sub>j</sub>=RT, V<sub>cc</sub>=400V, I<sub>C</sub>=300A, V<sub>GE</sub>=15V, -V<sub>GE</sub>=var., R<sub>G</sub>=+10/-1Ω

The data below shows switching loss in dependency of the negative bias of the gate voltage signal (-V<sub>GE</sub>).

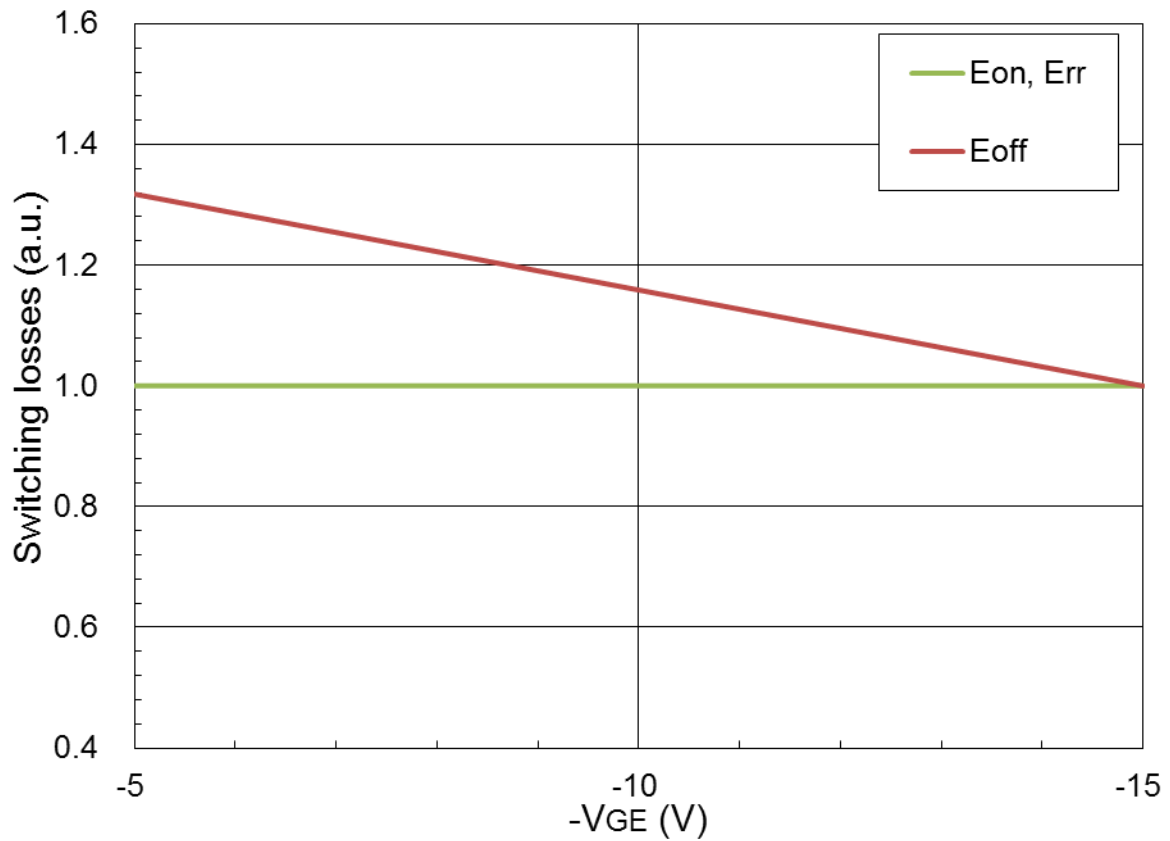


Measured module: 4MBI300VG-120R-50 (RB-IGBT=600V)

Measured condition: B-mode (T4=switching)

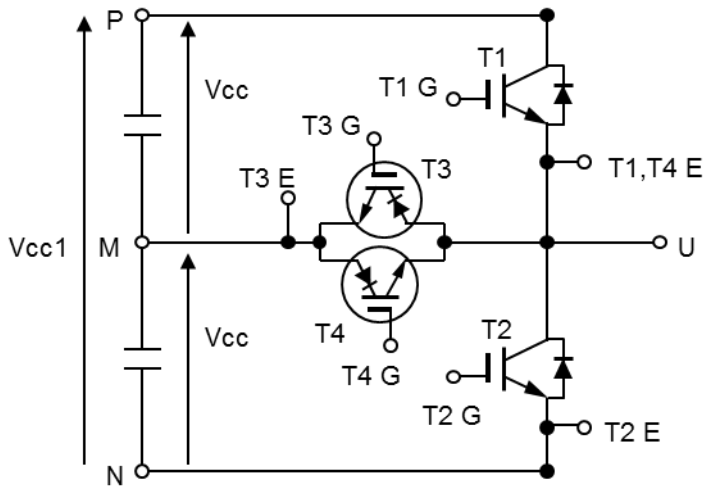
$T_j=RT$ ,  $V_{cc}=400V$ ,  $I_C=300A$ ,  $V_{GE}=15V$ ,  $-V_{GE}=var.$ ,  $R_G=+8.2/-39\Omega$

The data below shows switching loss in dependency of the negative bias of the gate voltage signal ( $-V_{GE}$ ).



## Appendix

### Circuit diagram



### Switching modes

SW Mode	Load L	T1	T2	T3	T4
A	M – U	SW	OFF	OFF	ON
	M – U	OFF	SW	ON	OFF
B	P – U	OFF	OFF	SW	ON
	U – N	OFF	OFF	ON	SW

SW: Connection to drive circuit and input gate signal

ON: Bias voltage of gate + 15V

OFF: Bias voltage of gate - 15V

$V_{cc1} = 2 \cdot V_{cc}$

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