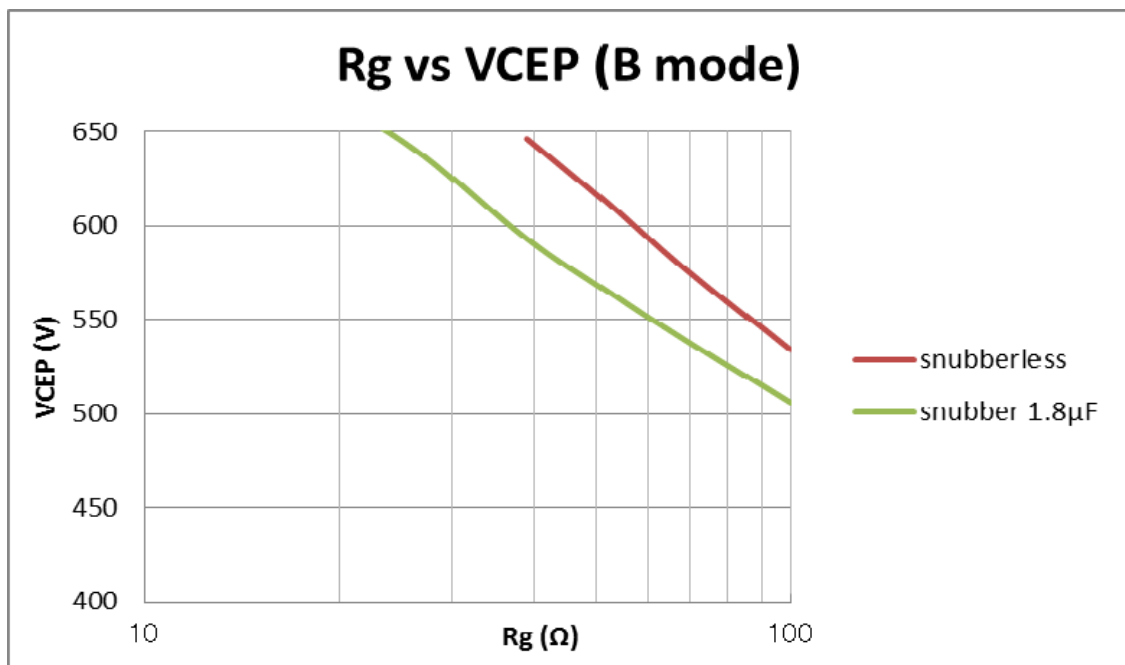
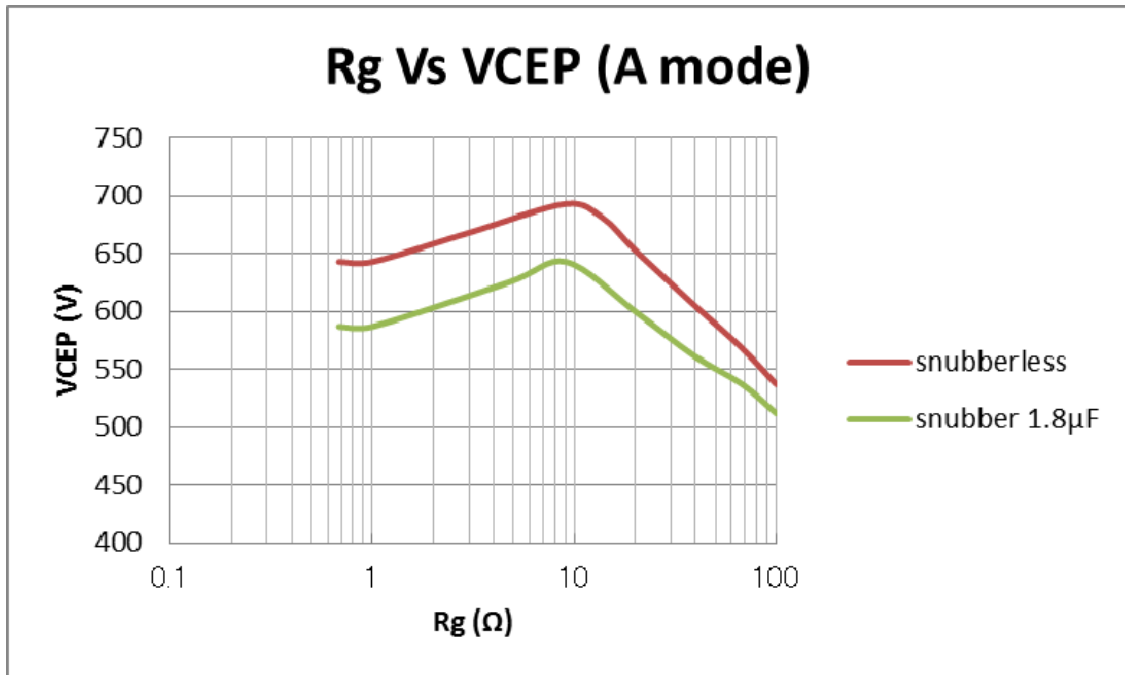


— RB-IGBT module 4MBI300VG-120R-50 —

Dependence of spike voltage on gate resistance by the effect of snubber and CGE

Measured module: 4MBI300VG-120R-50

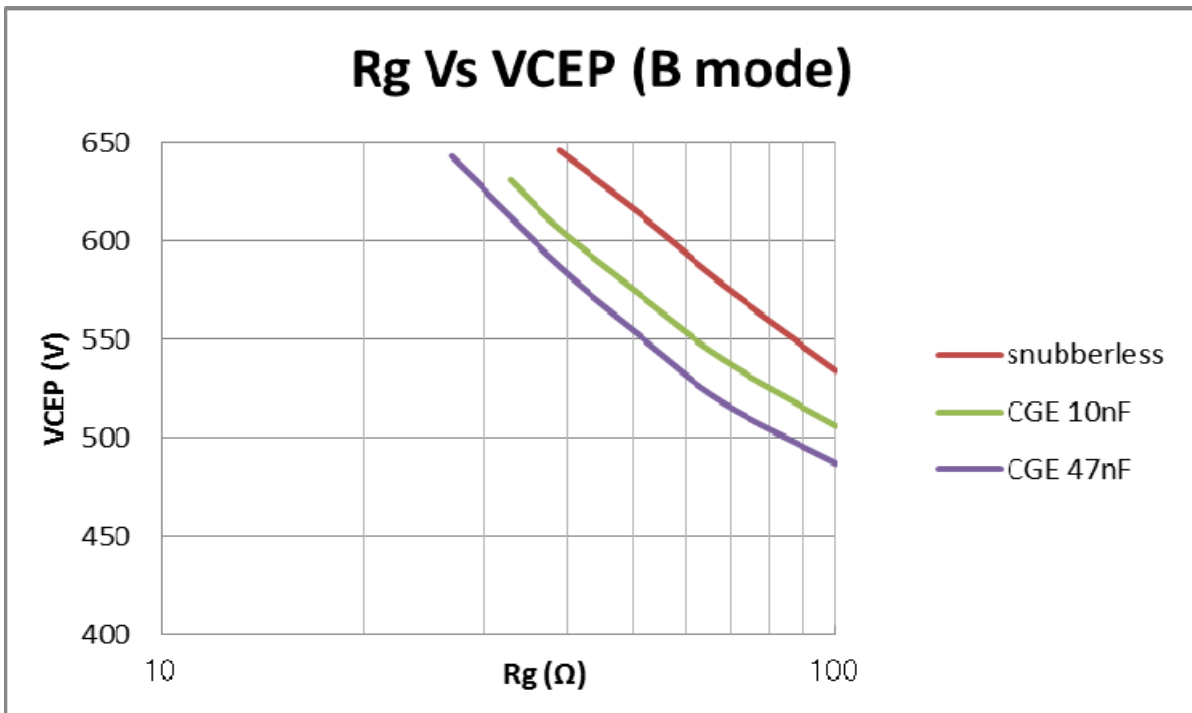
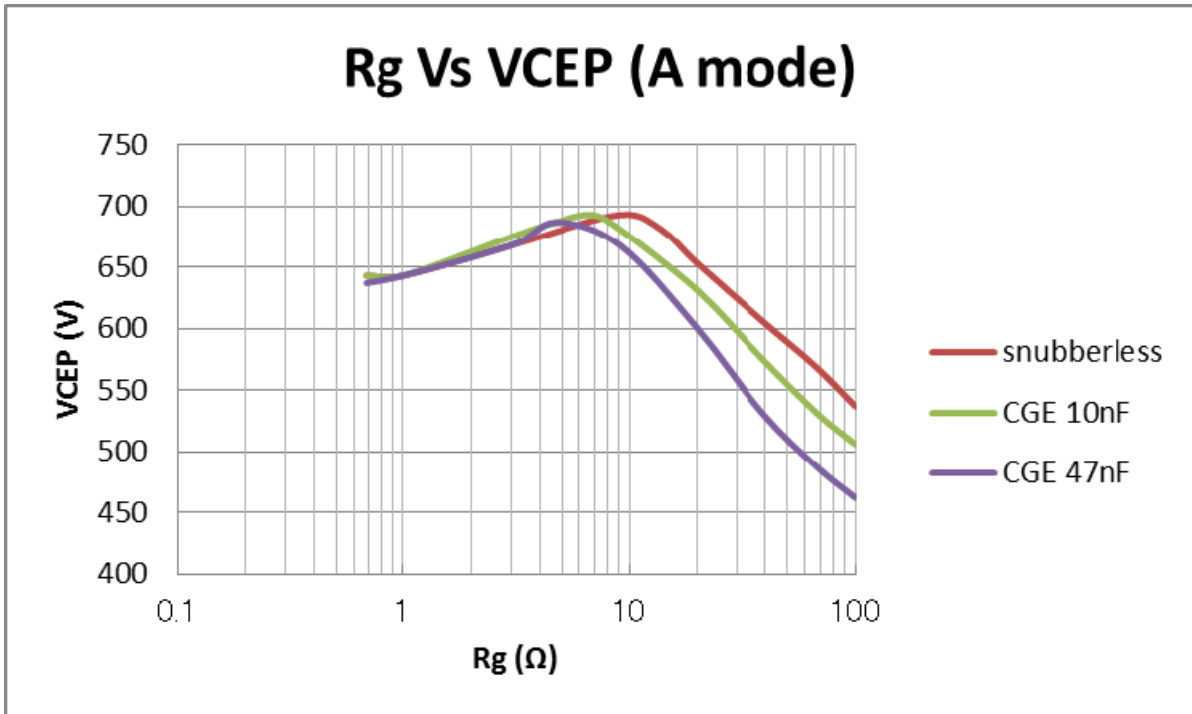
Measured condition: Vdc=400V, Ic=300A, Vge=+/-15V, Tj=125°C, Rg= variable



Dependence of spike voltage on gate resistance by the effect of snubber

Measured module: 4MBI300VG-120R-50

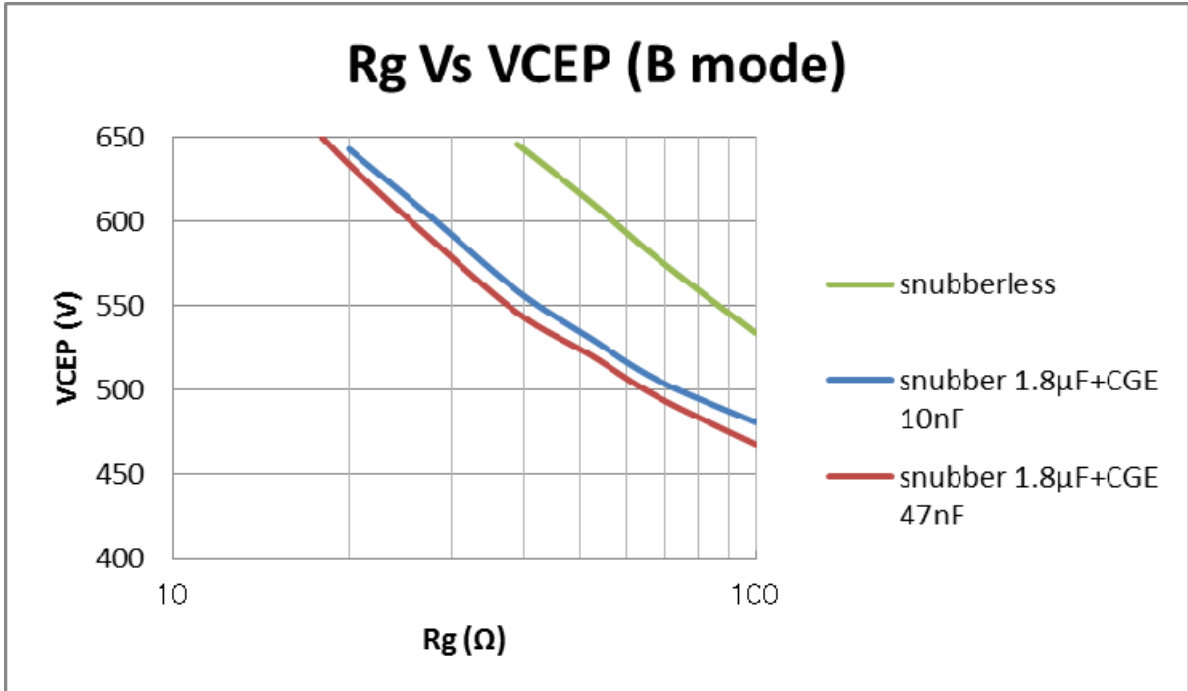
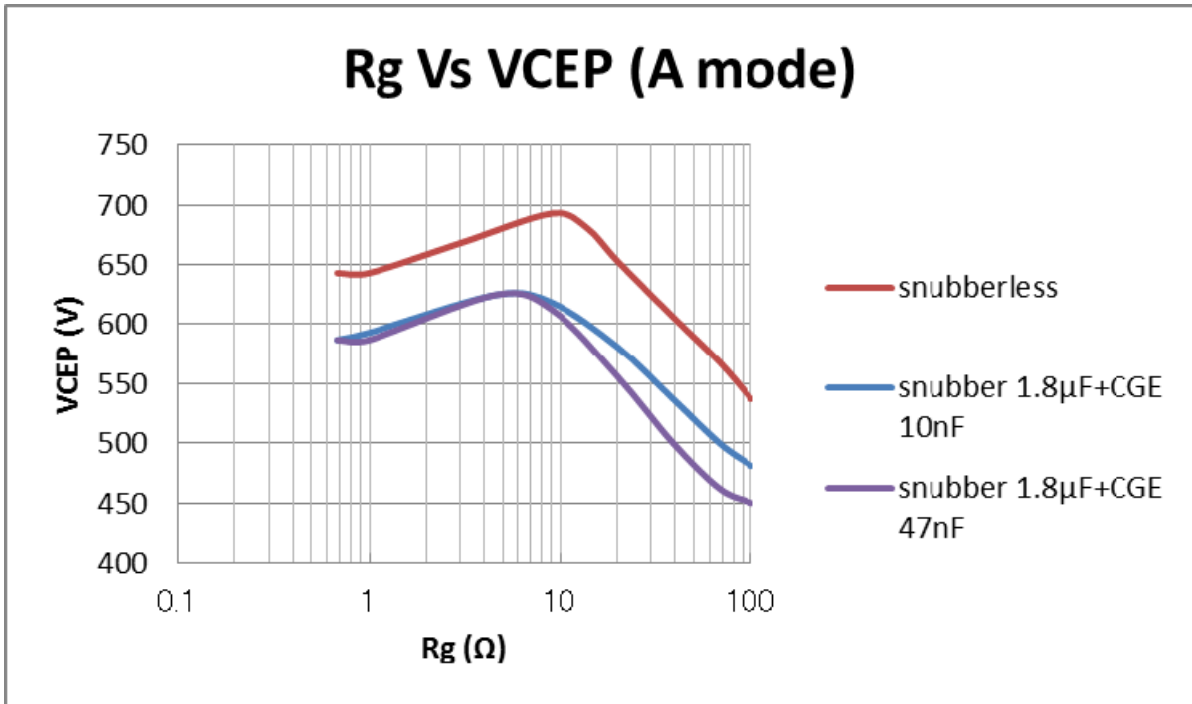
Measured condition: $V_{dc}=400V$, $I_c=300A$, $V_{ge}=\pm 15V$, $T_j=125^\circ C$, R_g = variable



Dependence of spike voltage on gate resistance by the effect of CGE

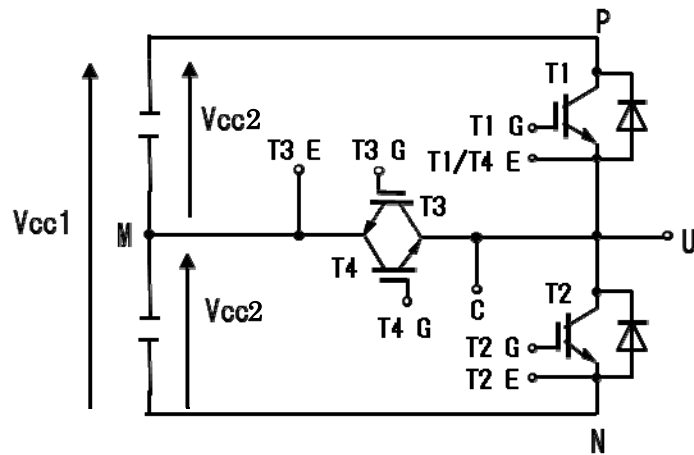
Measured module: 4MBI300VG-120R-50

Measured condition: $V_{dc}=400V$, $I_c=300A$, $V_{ge}=\pm 15V$, $T_j=125^\circ C$, R_g = variable



Dependence of spike voltage on gate resistance by the effect of snubber and CGE

Definitions of switching mode



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: Connect to drive circuit and input gate signal

ON: Bias voltage of gate +15V

OFF: Reverse bias voltage of gate -15V

$V_{cc2} = V_{cc1} / 2$

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