Dependence of Eoff on gate resistance by effect of snubber and CGE

Measured module: 4MBI300VG-120R-50
Measured condition: Vdc=400V, Ic=300A, Vge=+/-15V, Tj=125, Rg= variable

Dependence of Eoff on gate resistance by effect of snubber

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Fuji Electric
Innovating Energy Technology

Technical report: MT5F27375
Measured module: 4MBI300VG-120R-50
Measured condition: Vdc=400V, Ic=300A, Vge=+/-15V, Tj=125, Rg=variable

**Dependency of Eoff on gate resistance by effect of CGE**

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![Graph](image1)

**Rg Vs Eoff (A mode)**

- **snubberless**
- CGE 10nF
- CGE 47nF

![Graph](image2)

**Rg Vs Eoff (B mode)**

- **snubberless**
- CGE 10nF
- CGE 47nF

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**Dependence of Eoff on gate resistance by effect of CGE**
Measured module: 4MBI300VG-120R-50
Measured condition: \( V_{dc}=400\,V, I_c=300\,A, V_{ge}=\pm 15\,V, T_j=125 \), \( R_g = \text{variable} \)

Dependence of \( E_{off} \) on gate resistance by effect of snubber and CGE

**Rg Vs Eoff (A mode)**

**Rg Vs Eoff (B mode)**

Dependence of \( E_{off} \) on gate resistance by effect of snubber and CGE
Definitions of switching mode

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<td>U-N</td>
<td>OFF</td>
<td>OFF</td>
<td>ON</td>
<td>SW</td>
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</tbody>
</table>

SW: Connect to drive circuit and input gate signal
ON: Bias voltage of gate +15V
OFF: Reverse bias voltage of gate -15V
Vcc2=Vcc1/2
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