Dependence of $E_{off}$ on Collector current by the effect of snubber and $C_{GE}$

Measured module: 4MBI300VG-120R-50

Measured condition: $V_{dc}=400\,V$, $V_{ge}=\pm 15\,V$, $T_j=125^\circ C$, $I_c=\text{varied}$, A mode: $R_{g_{off}}=1\,\Omega$, B mode: $R_{g_{off}}=39\,\Omega$

---

**Ic Vs $E_{off}$ (A mode)**

![Graph showing $E_{off}$ vs $I_c$ for A mode with and without snubber with $R_{g_{off}}=1\,\Omega$ and $1.8\,\mu F$.]

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**Ic Vs $E_{off}$ (B mode)**

![Graph showing $E_{off}$ vs $I_c$ for B mode with and without snubber with $R_{g_{off}}=39\,\Omega$ and $1.8\,\mu F$.]

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Dependence of $E_{off}$ on Collector current by the effect of snubber
Measured module: 4MBI300VG-120R-50
Measured condition: Vdc=400V, Vge=+/−15V, Tj=125°C, Ic=vari., A mode: Rgoff=1Ω, B mode: Rgoff=39Ω

**Dependence of Eoff on Collector current by the effect of Cge**

*Graph 1: Ic Vs Eoff (A mode)*

*Graph 2: Ic Vs Eoff (B mode)*
Measured module: 4MBI300VG-120R-50
Measured condition: $V_{dc}=400\,\text{V}$, $V_{ge}=\pm 15\,\text{V}$, $T_j=125\,^\circ\text{C}$, $I_c=\text{var}$., A mode: $R_{goff}=1\,\Omega$, B mode: $R_{goff}=39\,\Omega$

Dependence of $E_{off}$ on Collector current by the effect of snubber and $C_{GE}$

**Ic Vs Eoff (A mode)**

**Ic Vs Eoff (B mode)**

Dependence of $E_{off}$ on Collector current by the effect of snubber and $C_{GE}$
Definitions of switching mode

<table>
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<th>SW mode</th>
<th>Load L</th>
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<tr>
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<tr>
<td></td>
<td>M-U</td>
<td>OFF</td>
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<td>ON</td>
<td>OFF</td>
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<tr>
<td>B</td>
<td>P-U</td>
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<td>OFF</td>
<td>SW</td>
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</tr>
<tr>
<td></td>
<td>U-N</td>
<td>OFF</td>
<td>OFF</td>
<td>ON</td>
<td>SW</td>
</tr>
</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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WARNING

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