IGBT þ Ώ ţ ḿ ^ ◖ Y Ő ɾ

ş F.A.E.Team ş Norman Day

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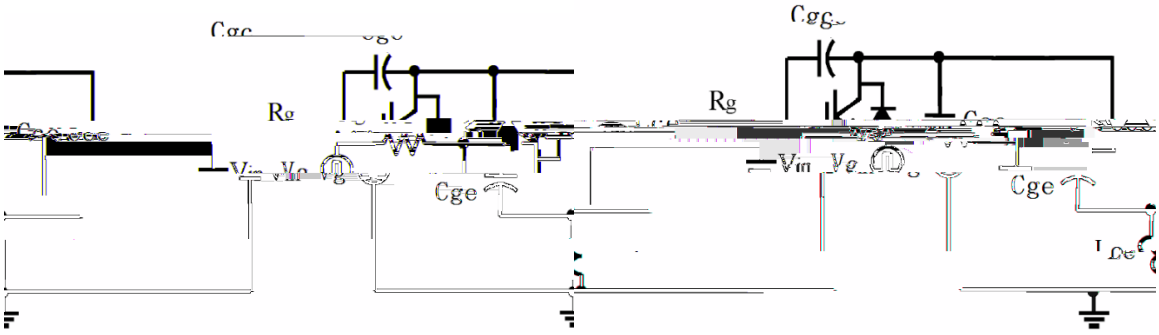
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Ķ Ő ɾ ϑ ³ ز Ώ ţ ά IGBT ɾ ţ □ п ¢ ¨ Ὴ ų ƿ ҽ

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1.ĩH ، IGBT ɪ Ģ ţ Ģ ŋ ţ ḿ ő ♯ g ƀ Ģ ŋ ţ ḿ ¢ ◖ Y ! Ũ ɹ ő ų ƥ ì ð ɹ ت ţ Ր Ր ọ ő Ж Ģ ţ Ģ ŋ ţ ḿ ◖ Y Ũ Й ¢ Ж Ί Ƙ4 ¢

2. ᴮ ţ V_G IGBT ◖ ọ ĸ 3 0V Ũ Ɔ 15V ¢ Ж Ί ᴮ ţ Ģ | ɪ Ч ♪ ¢

3.ĩH ، Cgc ő ♯ g Cge ɪ ¢ IGBT ◖ ţ ˜ ε ш Ð ő ţ Ciss=Cge+Cgc ő Ж Cge ϶ Cgc ° 1 ˛ 2 š ˘ ά ὰ Cge<<Cgc ¢ Ж Ί ὰ Ű Ƙ4 ¢

4.ĩH ، ᴮ ε ɪ ŋ ţ ḿ ¢ Ж Ί Ƙ4 ɪ - ₁ ɔ Ĭ ¢

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¯ Ű ₾ ő 2 ő Ḥ ɪ Ί ő ت ƀ Ģ ō emitter Ǒ ţ ḿ ɾ Ч 15V ɪ ᴮ ţ ^ Cge ɪ ч ţ Ⱦ ¢

$$Vge(t) \quad Vg \quad Vg^{e^{\frac{t}{}}}$$

$$RgCies \quad RgCge$$

Ƈ $Vge(t) \quad V_{TH}$ ő Ƶ ı ˛ ɾ Y Ũ Ş

$$td \quad \ln\frac{Vg}{Vg \quad V_{TH}} \quad RgCge\ln\frac{Vg}{Vg \quad V_{TH}}$$

$$td \quad RgCge\ln(1 \quad \frac{V_{TH}}{Vg \quad V_{TH}})$$

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Cge V_{TH} V_g 10~20V V_{TH} 3~5V V_g 20% V_{TH} 10% Rg

$$Vg \quad ig(t)*Rg \quad Vge(t) \quad \frac{dig(t)}{dt}$$

$$\frac{15}{S} \quad RgI(S) \quad \frac{1}{SCge}I(S) \quad SLe$$

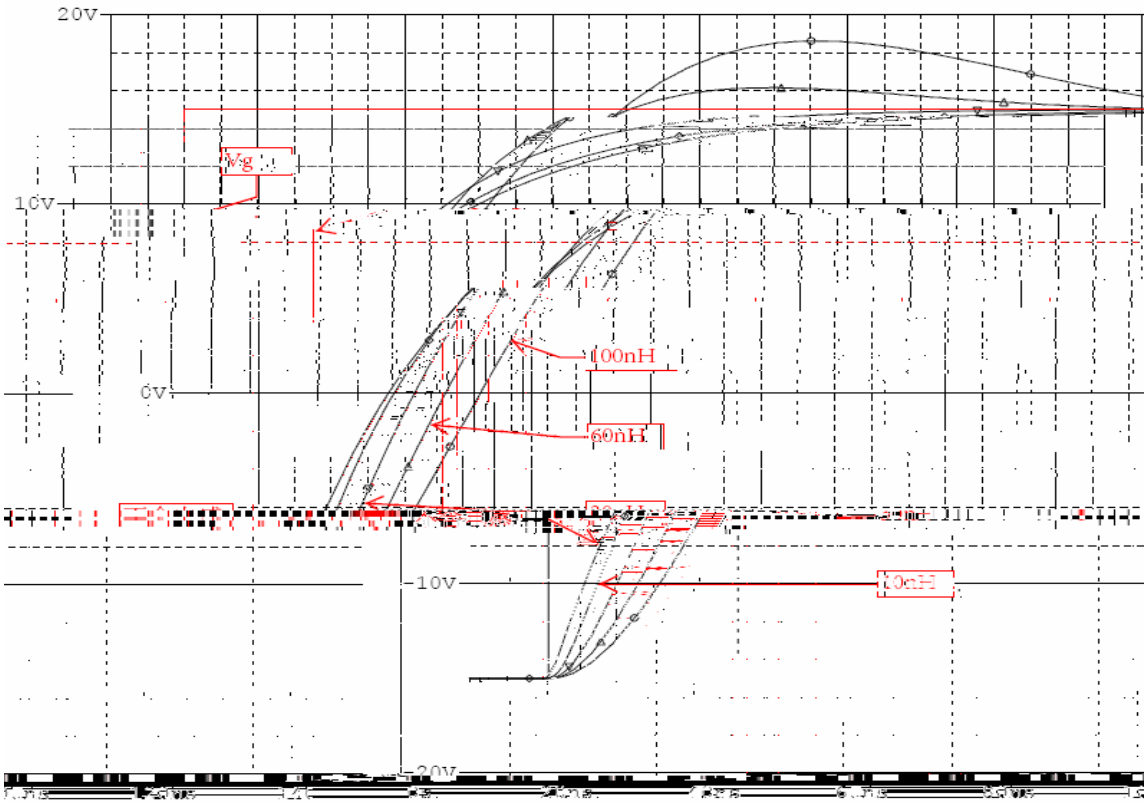
$$I(s) \quad \frac{15Cge}{S^2LeCge \quad SRgCge \quad 1} \quad \frac{15Cge}{AS^2 \quad BS \quad 1}$$

$A \quad CgeLe \quad B \quad RgCge$

$B^2 \quad 4A \quad 0$

$$ig(t) \quad 15Cge \quad 15Cge(\frac{1}{1 \quad 2}e^{\frac{t}{1}} \quad \frac{2}{1 \quad 2}e^{\frac{t}{2}})$$

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