N Channel Enhancement

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- creased
- High speed switching
- Very low switching losses
- High blocking voltage with low on-resistance
- Temperature independent turn-off switching losses
- Halogen free, RoHS compliant

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Datasheet

Q_{gs}	Gate source charge	-	60	-	nC	V_{DS} = 500V, V_{GS} = -4/+18V I_D = 100A	Fig.12
Q_{gd}	Gate drain charge	-	42	-			
Q_g	Gate charge	-	195	-			

Tc = 25°C unless otherwise specified,the data comes from TO-247-4L)

E_{on}	Turn on switching energy	-	980	-	μJ	V_{DS} = 500V, V_{GS} = -4/+18V I_D = 100A, Rg = 2.5Ω, L = 16.7μH	
E_{off}	Turn off switching energy	-	831	-			
$t_{d\ on}$	Turn on delay time	-	36	-	ns		
t_r	Rise time	-	43	-			
$t_{d\ off}$	Turn off delay time	-	83	-			
t_f	Fall time	-	13	-			

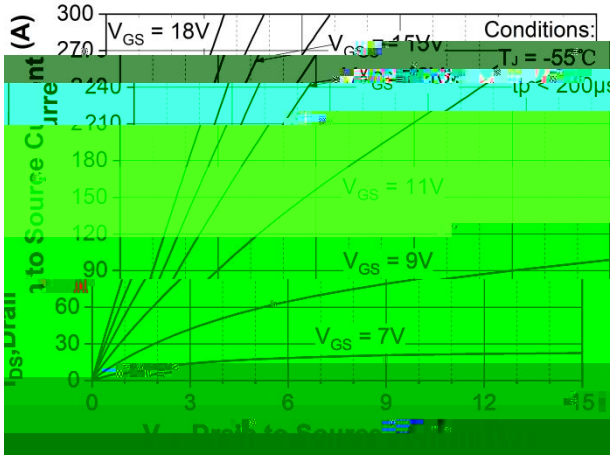


Figure 1. Output characteristics T_J = -55 ºC

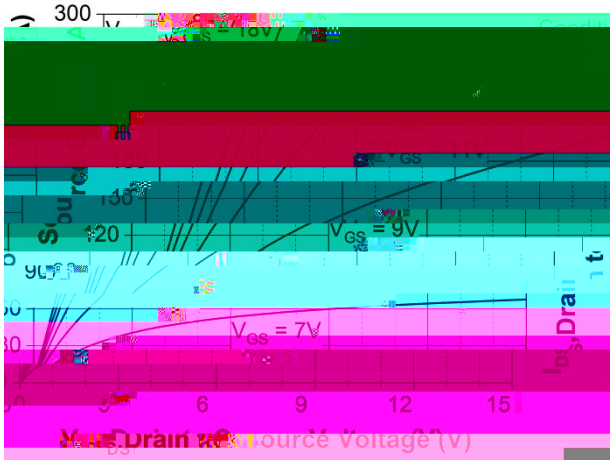


Figure 2. Output characteristics T_J = 25 ºC

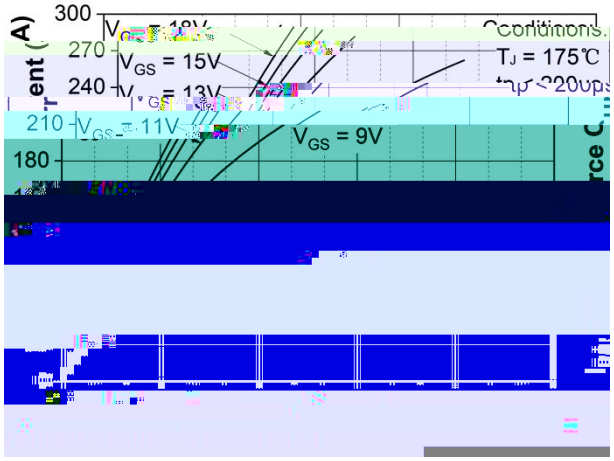


Figure 3. Output characteristics T_J = 175 ºC

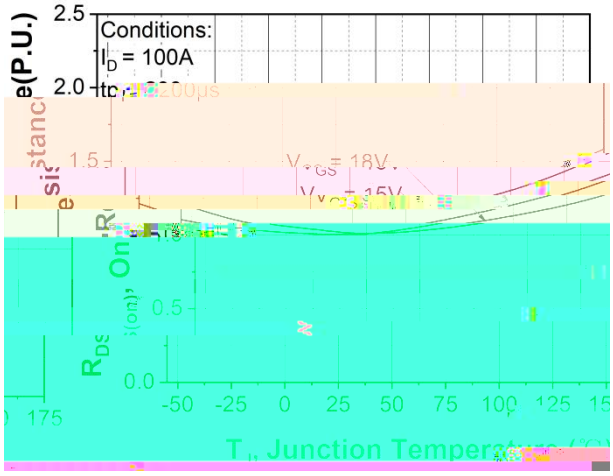


Figure 4. Normalized on-resistance vs. temperature

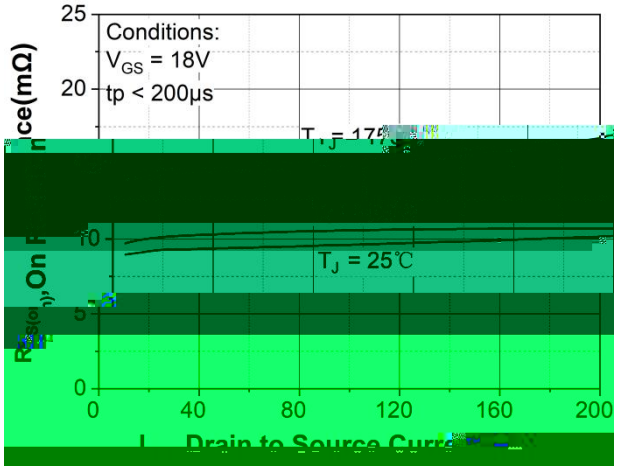


Figure 5. On-resistance vs. drain current for various temperatures

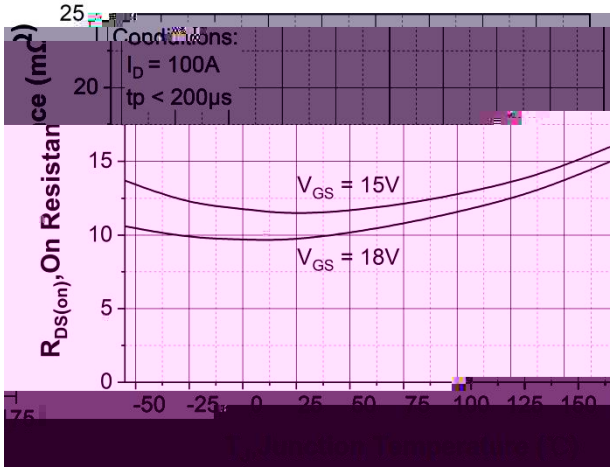


Figure 6. On-resistance vs. temperature for various gate voltages



Figure 7. Transfer characteristic for various junction temperatures

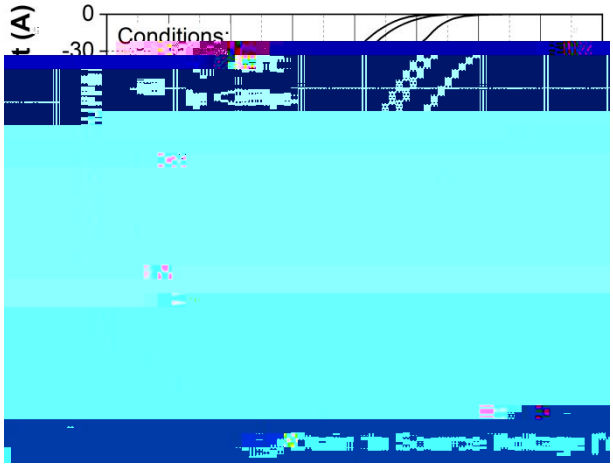


Figure 8. Body diode characteristic at T_J = -55 ºC

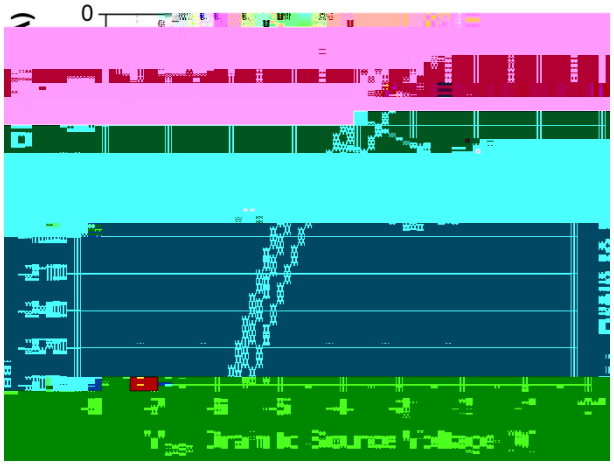


Figure 9. Body diode characteristic at T_J = 25 ºC

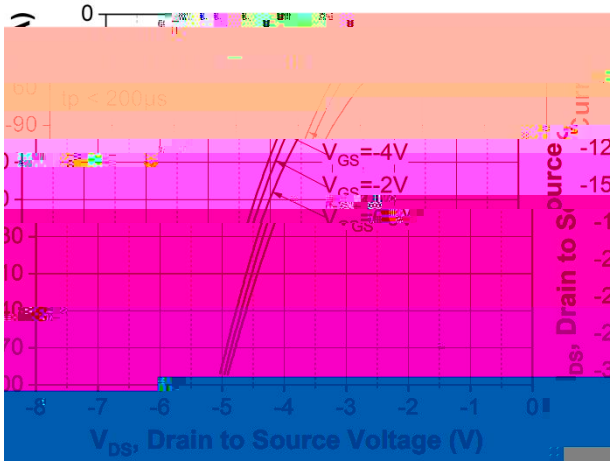


Figure 10. Body diode characteristic at T_J = 175ºC

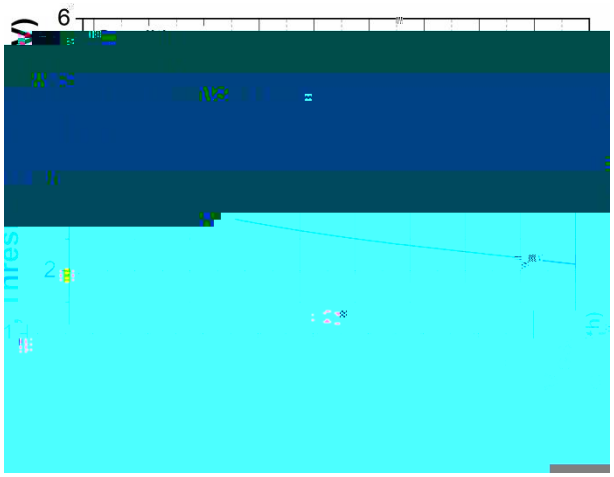


Figure 11. Threshold voltage vs. temperature

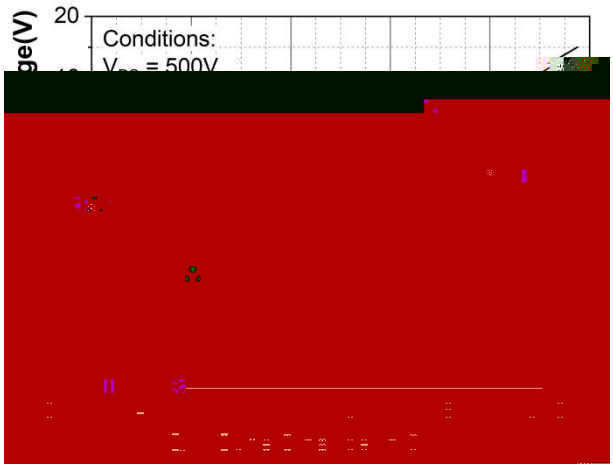


Figure 12. Gate charge characteristic

Datas

Die size W x L	5 * 5	mm
Gate pad size W x L	0.78 * 0.68	mm
Source pad size W x L	1.9 * 3.1	mm
Kelvin pad size W x L	1.	

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1.
The levels of RoHS restricted materials in this product are below the maximum concentration values (also referred to as the threshold limits) permitted for such substances, or are used in an exempted application, in accordance with EU Directive 2011/65/ EC (RoHS2), as implemented January 2, 2013.

2.
REACh substances of high concern (SVHCs) information is available for this product. Since the European Chemical Agency (ECHA) has published notice of their intent to frequently revise the SVHC listing for the foreseeable future, please contact a Sichain representative to insure you get the most up-to-date REACh SVHC Declaration. REACh banned substance information (REACh Article 67) is also available upon request.

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4. Any information given in this documents subject to cucl mer's compliance with its obligations and any applicable legal requirements, norms and standards concerning any use of the product of Sichain in any cucl mer's applicationc

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