N Channel Enhancement

- High speed switching
- Very low switching losses



(Tc = 25°C unless otherwise specified)

(Tc = 25°C unless otherwise specified)

$V_{(BR)DSS}$	Drain-source breakdown voltage	1200	-	-	V	V_{GS} = 0V, I_D = 100μA	
$V_{GS(th)}$	Gate threshold voltage	2.3	2.8	3.6	V	V_{DS} = V_{GS}, I_D = 18mA	Fig.11
		-	2.2	-	V	V_{DS} = V_{GS}, I_D = 18mA T_J = 175°C	
I_{DSS}	Zero gate voltage drain current	-	1	10	μA	V_{DS} = 1200V, V_{GS} = 0V	
I_{GSS}	Gate source leakage current	-	-	100	nA	V_{GS} = 15V, V_{DS} = 0V	
$R_{DS(on)}$	Current drain-source on-state resistance	-	20	28	mΩ	V_{GS} = 15V, I_D = 64A	Fig.4,5,6
			35			V_{GS} = 15V, I_D = 64A, T_J = 175°C	
gfs	Transconductance	-	44	-	S	V_{DS} = 20V, I_D = 64A	Fig.7
		-	42	-		V_{DS} = 20V, I_D = 64A, T_J = 175°C	
$R_{g,int}$	Intenal gate resistance	-	3.3	-	Ω	V_{AC} = 25mV, f = 1MHz, open drain	

(Tc = 25°C unless otherwise specified)

C_{iss}	Input capacitance	-	4130	-	pF	V_{DS} = 1000V,

Q_{gs}	Gate source charge	-	41	-	nC

aH

a

Da a

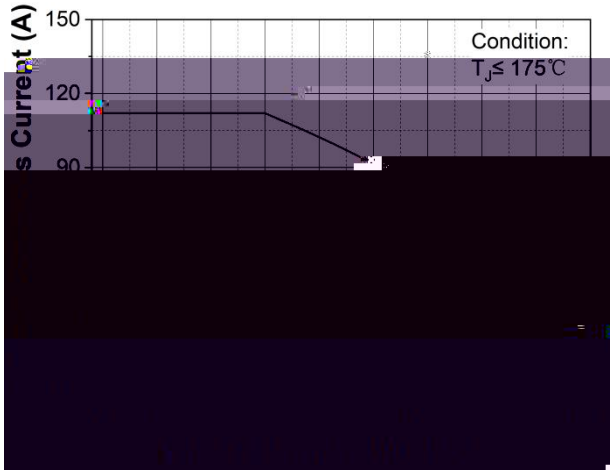


Figure 19. Continuous drain current derating vs. case temperature

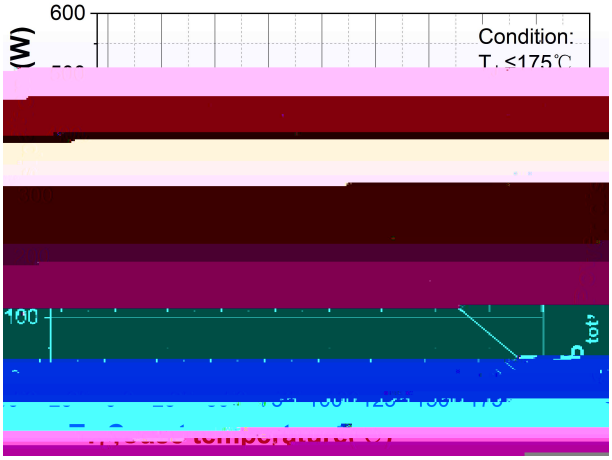


Figure 20. Maximum power dissipation derating vs. case temperature

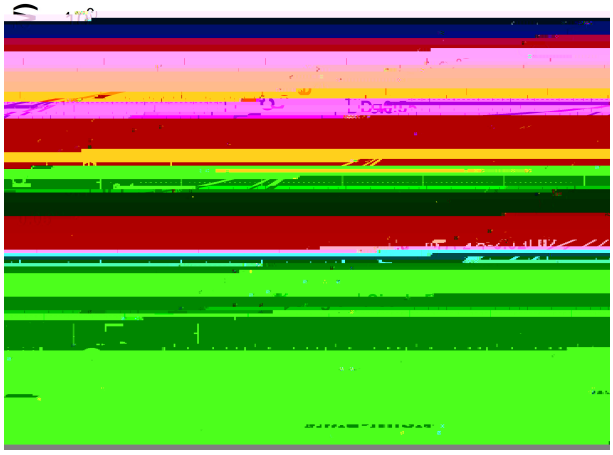


Figure 21. Transient thermal impedance (junction - case)

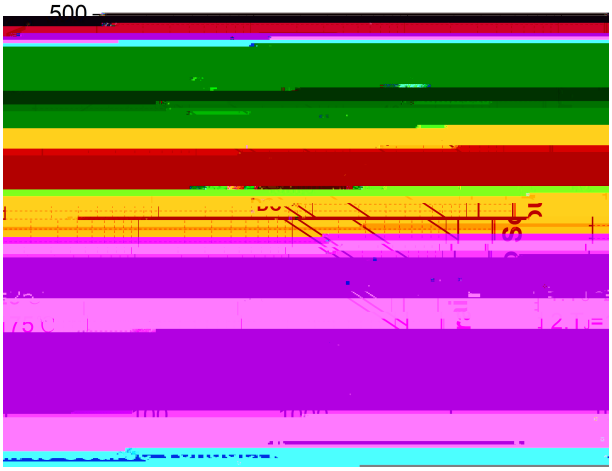


Figure 22. Safe operating area

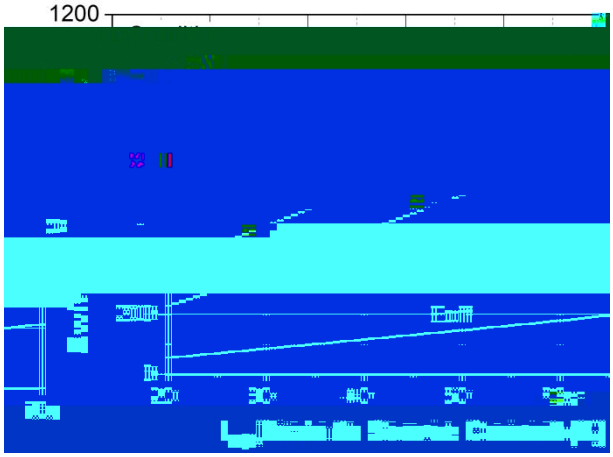


Figure 23. Clamped Inductive switching energy vs. drain current (V_{DD} = 600V)

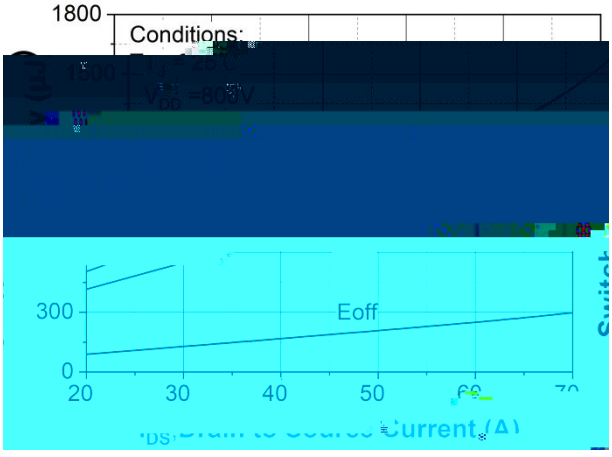
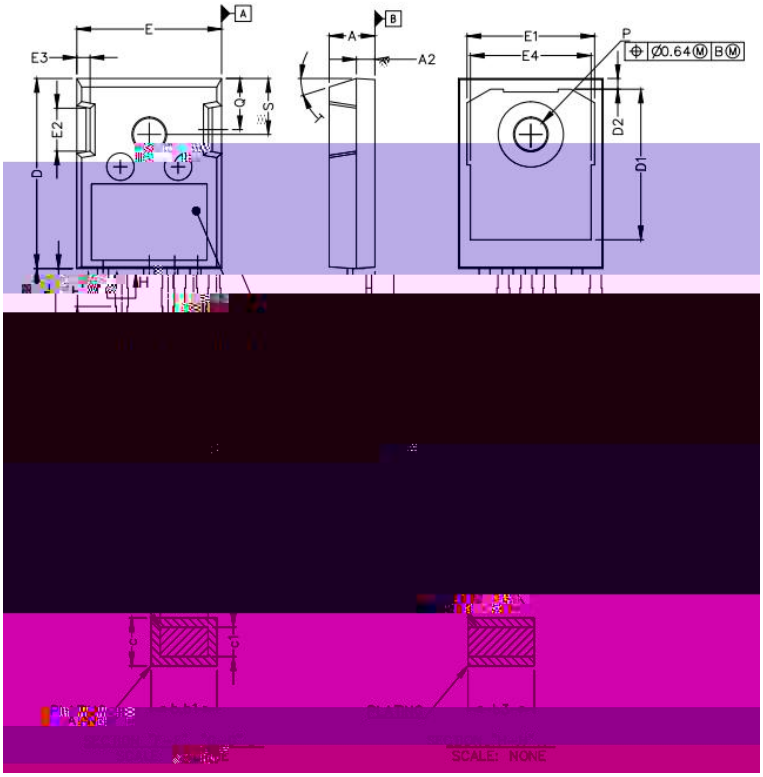


Figure 24. Clamped inductive switching energy vs. drain current (V_{DD} = 800V)

Figure 25. Clamped inductive switching energy vs. R_G(ext)

Figure 26. Clamped inductive switching energy vs. temperature

(TO-247-4L-C)



NOTE ;
1. ALL METAL SURFACES: TIN PLATED,EXCEPT AREA OF CUT
2. DIM. . .SIONING & TOLERANCEING CONFIRM TO ASME Y14.5M-1994.
3. ALL DIMENSIONS ARE IN MILLIMETERS.
ANGLES ARE IN DEGREES.

SYM	MILLIMETERS	
	MIN	MAX
A	4.83	5.21
A1	2.29	2.54
A2	1.91	2.16
b	1.10	1.30
b1	0.65	0.79
b2	1.10	1.25
b3	1.34	1.44
[illegible]	[illegible]5	0.74
c	0.55	0.6[illegible]

		——	——
			——

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 intention to frequently revise the SVHC listing for the foreseeable future, please contact a Sichain representative to ensure you get the most up-to-date REACh SVHC Declaration. REACh banned substance information (REACh Article 67) is also available upon request.

7. Except as otherwise

