Ã a ? d / Absolute Maximum Ratings(Ta=25 ;)

@ ƒ Parameter		… Z Symbol	ƒ › Rating	% y Unit
Drain-Source Voltage		V_{DSS}	60	V
Gate-Source Voltage		V_{GSS}	±20	V
Drain Current – Continuous		I_D	3.0	A
Pulsed Drain Current		I_{DM}	15	A
Power Dissipation		P_D	0.9	W
Storage Temperature Range		T_{stg}	-55 150	
Maximum Junction-to-Ambient	t 710s	R @A	55	/W
Maximum Junction-to-Ambient	Steady-State		139	

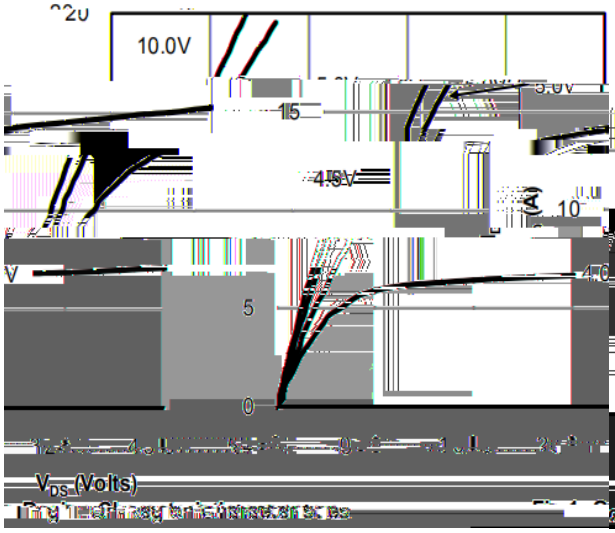
Ô4ì × ? d / Electrical Characteristics(Ta=25 ;)

@ ƒ Parameter	… Z Symbol	y ¡ Ú ^ Test Conditions	Â 4 › Min	Á º › Typ	Â Ý › Max	% y Unit
Drain–Source Breakdown Voltage	$V_{(BR)DSS}$	V_{GS}=0 I_D=250 A	60	68		V
Zero Gate Voltage Drain Current	I_{DSS}	V_{GS}=0 V_{DS}=60V			1.0	A
Gate–Body Leakage.	I_{GSS}	V_{GS}=±20V V_{DS}=0V			±100	nA
Static Drain–Source On–Resistance	$R_{DS(on)1}$	V_{GS}=10V I_D=3A		84	90	m
	$R_{DS(on)2}$	V_{GS}=4.5V I_D=3A		94	110	m
Drain–Source Diode Forward Voltage	V_{SD}	V_{GS}=0V I_D=1A		0.75	1.2	V
Gate Threshold Voltage	$V_{GS(th)}$	V_{DS}=V_{GS} I_D=250 A	1.0	1.8	3.0	V
Maximum Body-Diode Continuous Current	I_S				3	A
Input Capacitance	C_{iss}	VGS=0V, VDS=25V f=1MHz		415		pF
Output Capacitance	C_{oss}			37		
Reverse Transfer Capacitance	C_{rss}			25		
Gate resistance	Rg	VGS=0V, VDS=0V f=1MHz		3.4		¡
Total Gate Charge	$Q_{g(10V)}$	VGS=10V, VDS=30V ID=4.2A		10		nC
Total Gate Charge	$Q_{g(4.5V)}$			5		
Gate Source Charge	Q_{gs}			2		
Gate Drain Charge	Q_{gd}			3		

Ô4ì × ? d / Electrical Characteristics(Ta=25 ;)

@ ƒ Parameter	… Z Symbol	y ¡ Ú ^ Test Conditions	Â 4 › Min	Á º › Typ	Â Ý › Max	% y Unit
Turn–On Delay Time	td(on)	VGS=10V, VDS=30V RL=7 Ÿ, RGEN=3 Ÿ		7		ns
Turn–On Rise Time	tr			12		
Turn–Off Delay Time	td(off)			16		
Turn–Off Fall Time	tf			11		

Ô ? d • Ž ¢ / Electrical Characteristic Curve



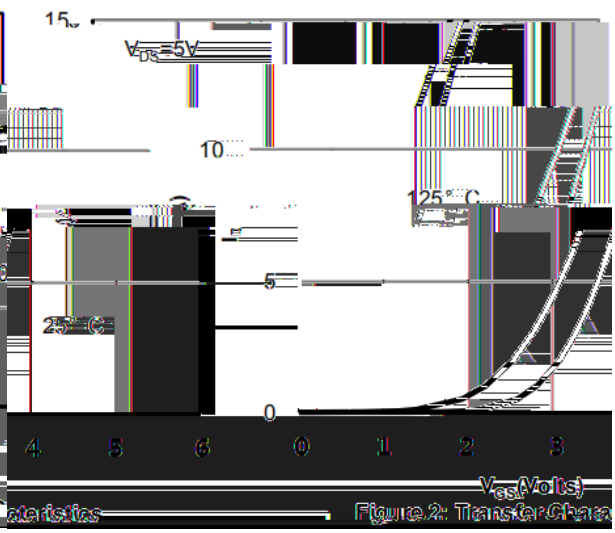


Figure 2: Transfer Characteristics

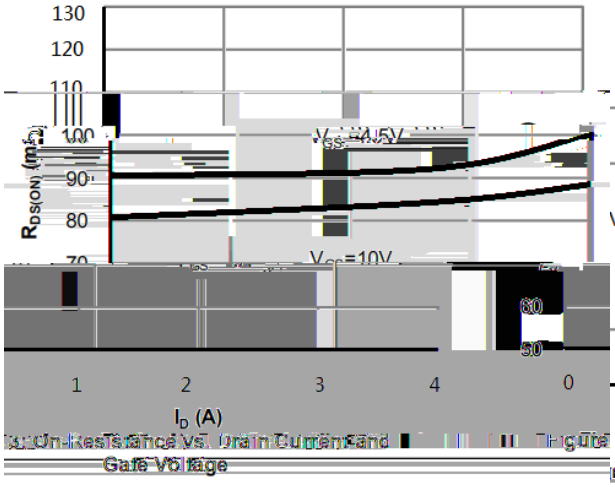


Figure 3: On-Resistance vs. Drain Current and Gate Voltage

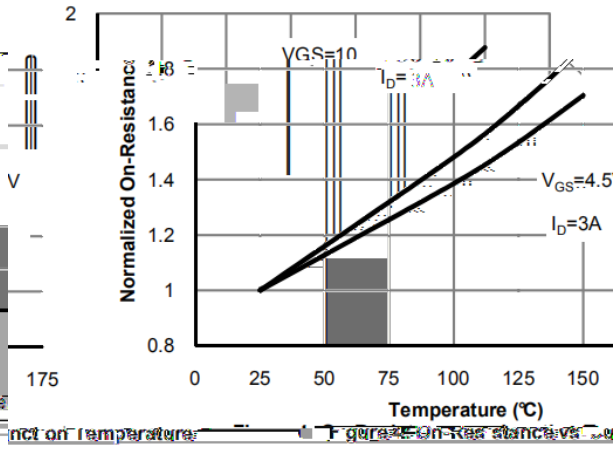


Figure 4: On-Resistance vs. Junction Temperature

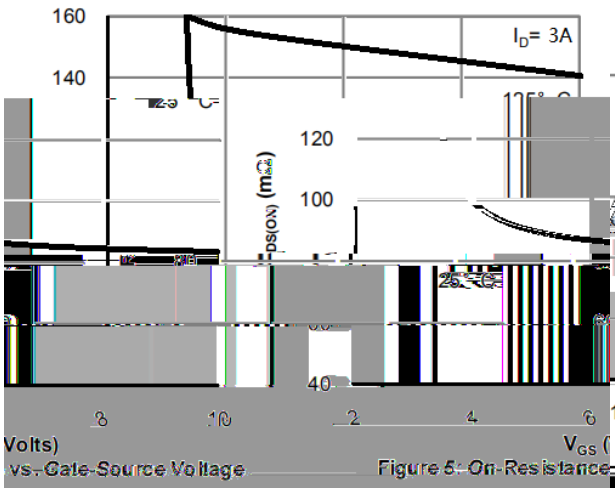


Figure 5: On-Resistance vs. Gate-Source Voltage

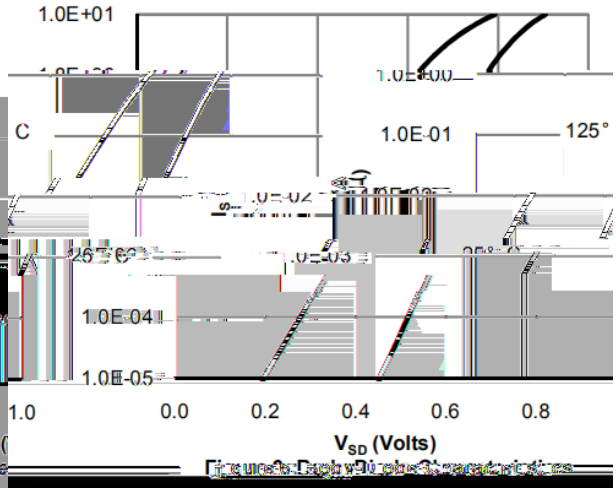
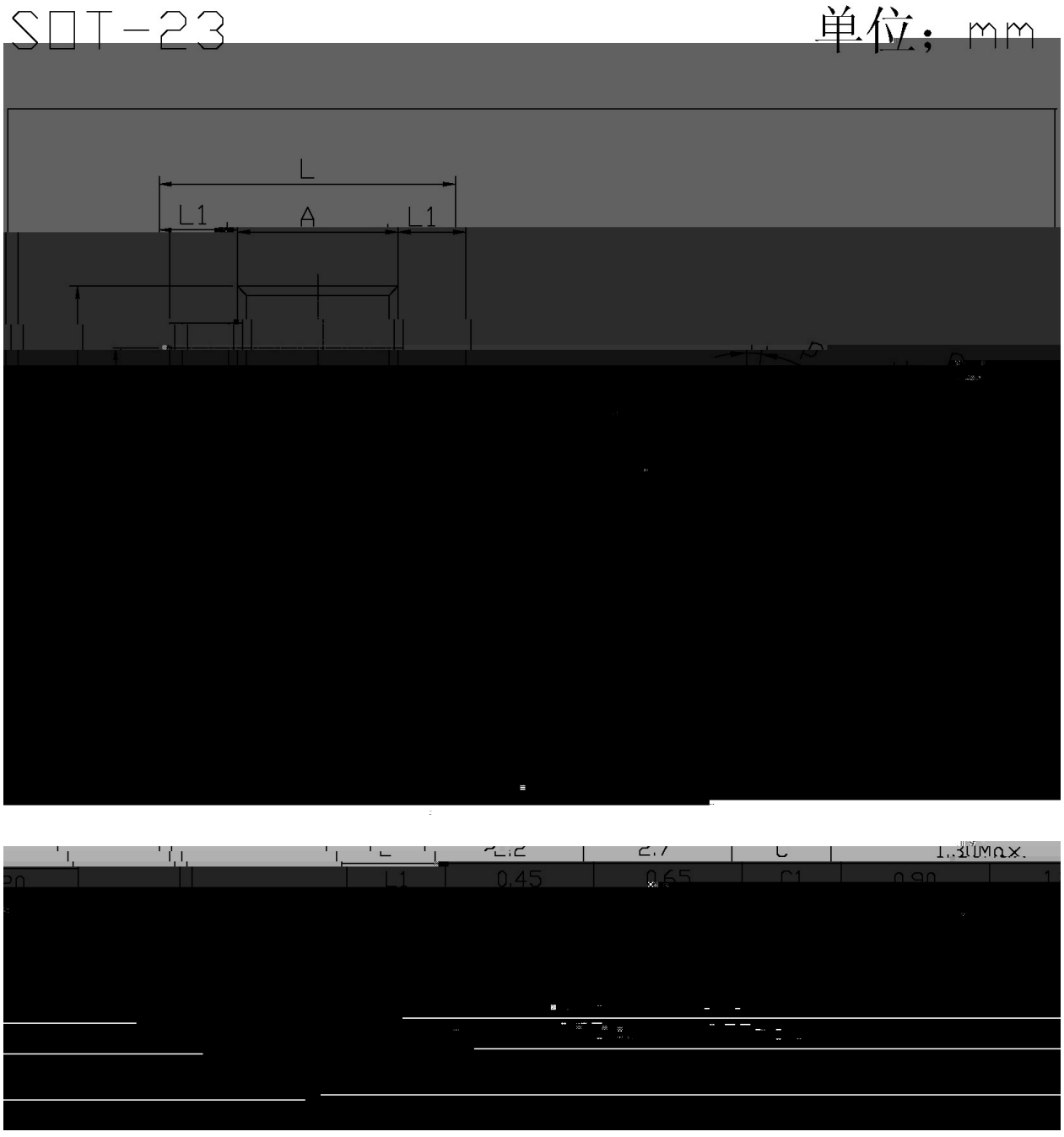
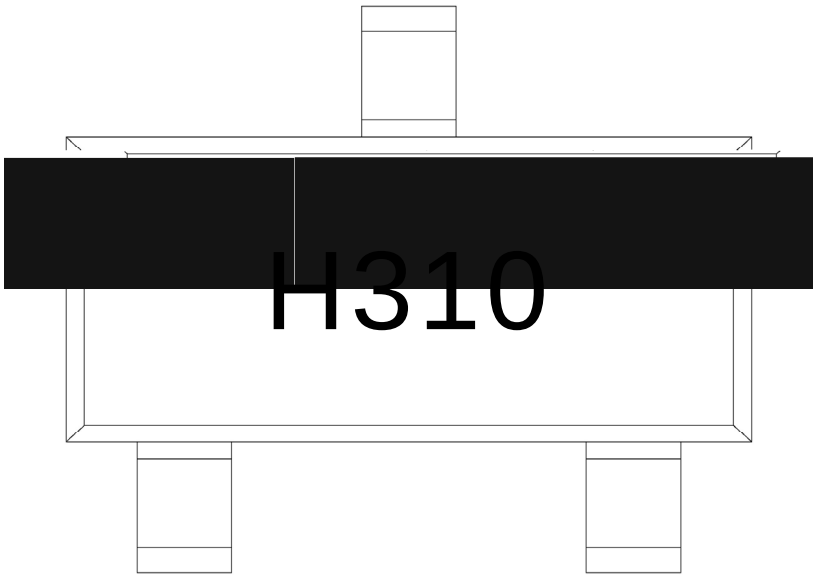


Figure 6: Body-Diode Characteristics

Ø ¤ =) ¢ / Package Dimensions



, M y ƒ / Marking Instructions



ª ¢ y

H: ¸ [W A

310: º Z W A

Note:

H: Company Code

310 y Product Type Code

š WD t … • Ž ¢ (x /) / : K S V K X G Z [X K 6 X U L O R K L U X / 8 8 K L R U] 9 U R J K X O T M 6

ª ¢ y

1o• Ä ½ “ † 150 ½180 - k ž • 60 ½90sec;

2o• Q › “ † 245 r 5 - k ž • 4 Ò 5 r 0.5sec;

3o•D N ò i Ò 0 , † 2 ½10 - /sec.

Note:

1.Preheating:150~180 - , Time:60~90sec.

2.Peak Temp.:245 r 5 - , Duration:5 r 0.5sec.

3. Cooling Speed: 2~10 - /sec.

ÂD /Cã p ¯ »] / Resistance to Soldering Heat Test Conditions

“ † y 260 r 5 - ž • y 10 r 1 sec. Temp.:260±5 Time:10±1 sec

G P á / Packaging SPEC.

2 & x / REEL

Package Type 7>û ˜ E	Units ;>û ¦H	Dimension ;>û p . (unit ÆEmm³)