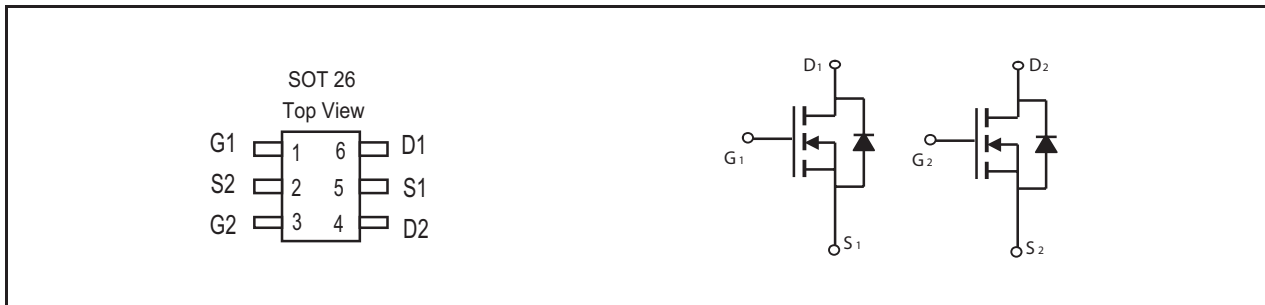


**Dual N-Channel Enhancement Mode Field Effect Transistor****PRODUCT SUMMARY**

V _{DSS}	I _D	R _{DS(ON)} (mΩ) Max
20V	3.4A	60 @ V _{GS} =4.5V
		90 @ V _{GS} =2.5V

FEATURES

- Super high dense cell design for low R_{DS(ON)}.
- Rugged and reliable.
- Surface Mount Package.

**ABSOLUTE MAXIMUM RATINGS (T_A=25°C unless otherwise noted)**

Symbol	Parameter	Limit	Units
V _{DS}	Drain-Source Voltage	20	V
V _{GS}	Gate-Source Voltage	±12	V
I _D	Drain Current-Continuous ^a	T _A =25°C	3.4
		T _A =70°C	2.7
I _{DM}	-Pulsed ^b	13.5	A
P _D	Maximum Power Dissipation ^a	T _A =25°C	1.25
		T _A =70°C	0.8
T _J , T _{STG}	Operating Junction and Storage Temperature Range	-55 to 150	°C

THERMAL CHARACTERISTICS

Symbol	Parameter	Limit	Units
R _{θJA}	Thermal Resistance, Junction-to-Ambient ^a	100	°C/W

STS2622A

Ver 2.0

ELECTRICAL CHARACTERISTICS (TA=25°C unless otherwise noted)

Symbol	Parameter	Conditions	Min	Typ	Max	Units
OFF CHARACTERISTICS						
BV _{DSS}	Drain-Source Breakdown Voltage	V _{GS} =0V, I _D =250μA	20			V
I _{DSS}	Zero Gate Voltage Drain Current	V _{DS} =16V, V _{GS} =0V			1	μA
I _{GSS}	Gate-Body Leakage Current	V _{GS} = ±12V, V _{DS} =0V			±100	nA
ON CHARACTERISTICS						
V _{GS(th)}	Gate Threshold Voltage	V _{DS} =V _{GS} , I _D =250μA	0.5	0.78	1.5	V
R _{DS(ON)}	Drain-Source On-State Resistance	V _{GS} =4.5V, I _D =3.4A		48	60	m ohm
		V _{GS} =2.5V, I _D =2.8A		67	90	m ohm
g _{FS}	Forward Transconductance	V _{DS} =5V, I _D =3.4A		9.5		S
DYNAMIC CHARACTERISTICS ^c						
C _{ISS}	Input Capacitance	V _{DS} =10V, V _{GS} =0V f=1.0MHz		230		pF
C _{OSS}	Output Capacitance			55		pF
C _{RSS}	Reverse Transfer Capacitance			35		pF
SWITCHING CHARACTERISTICS ^c						
t _{D(ON)}	Turn-On Delay Time	V _{DD} =10V I _D =1A V _{GS} =4.5V R _{GEN} =6 ohm		7		ns
t _r	Rise Time			7.2		ns
t _{D(OFF)}	Turn-Off Delay Time			13.5		ns
t _f	Fall Time			1.6		ns
Q _g	Total Gate Charge				4.5	
Q _{gs}	Gate-Source Charge	V _{DS} =10V, I _D =3.4A, V _{GS} =4.5V		0.9		nC
Q _{gd}	Gate-Drain Charge			1.9		nC
DRAIN-SOURCE DIODE CHARACTERISTICS AND MAXIMUM RATINGS						
V _{SD}	Diode Forward Voltage	V _{GS} =0V, I _S =1A		0.8	1.2	V

Notes

- Surface Mounted on FR4 Board, t ≤ 10sec.
- Pulse Test: Pulse Width ≤ 300us, Duty Cycle ≤ 2%.
- Guaranteed by design, not subject to production testing.

Jul,22,2010

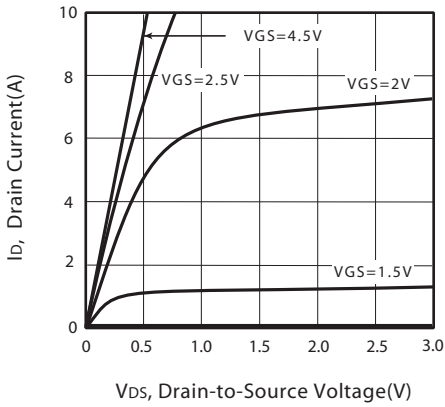


Figure 1. Output Characteristics

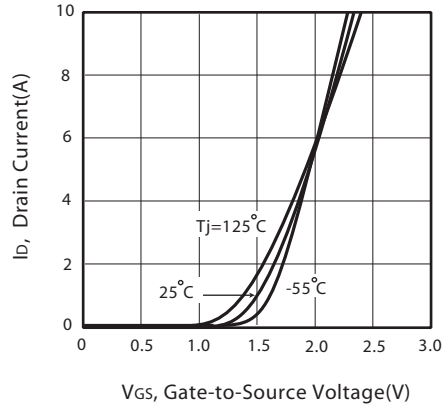


Figure 2. Transfer Characteristics

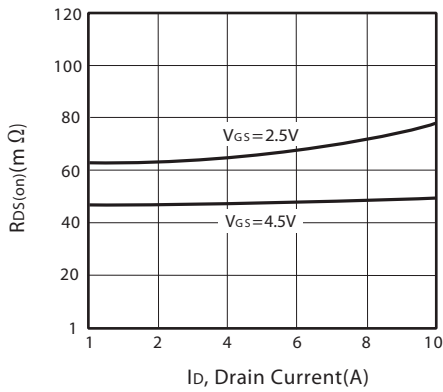


Figure 3. On-Resistance vs. Drain Current and Gate Voltage

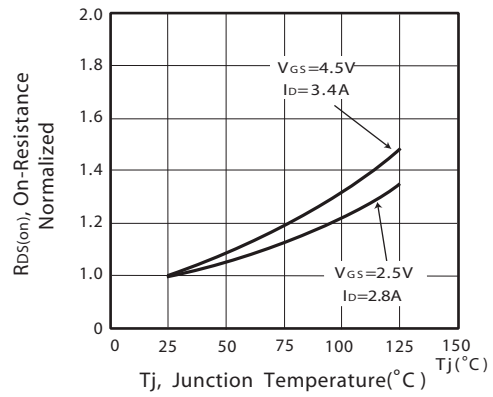


Figure 4. On-Resistance Variation with Drain Current and Temperature

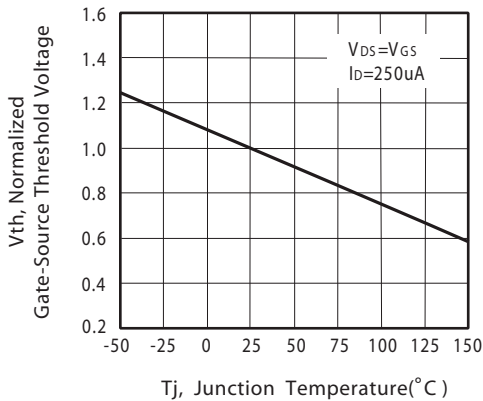


Figure 5. Gate Threshold Variation with Temperature

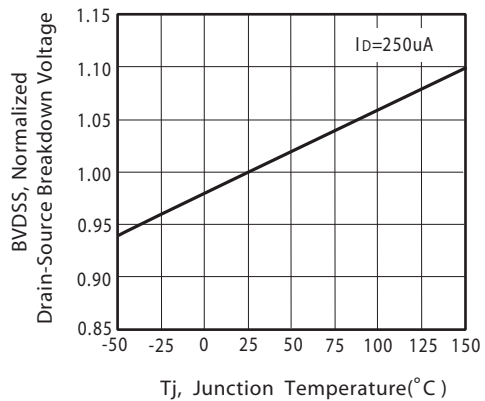


Figure 6. Breakdown Voltage Variation with Temperature

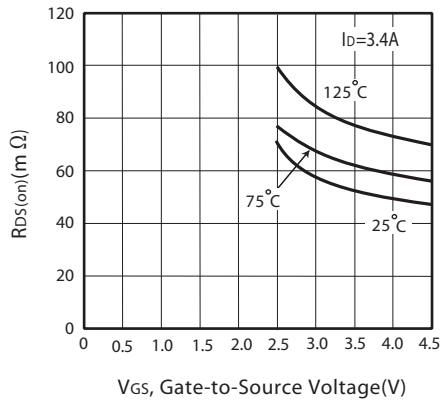


Figure 7. On-Resistance vs. Gate-Source Voltage

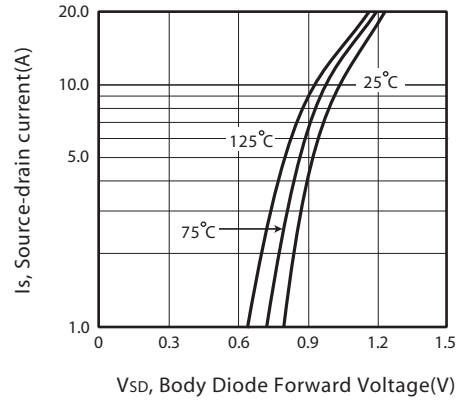


Figure 8. Body Diode Forward Voltage Variation with Source Current

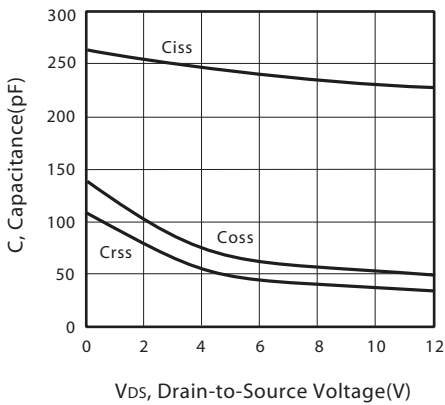


Figure 9. Capacitance

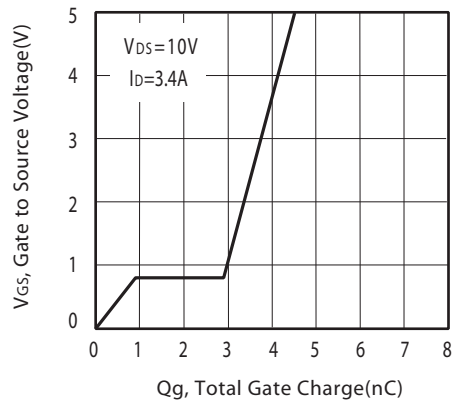


Figure 10. Gate Charge

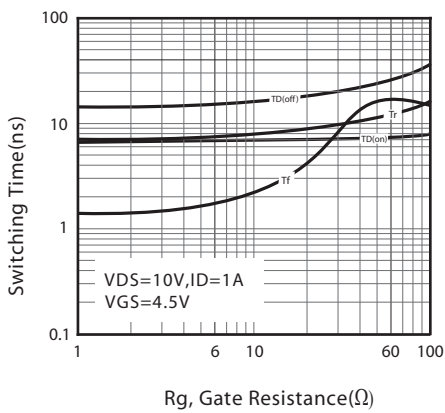


Figure 11. switching characteristics

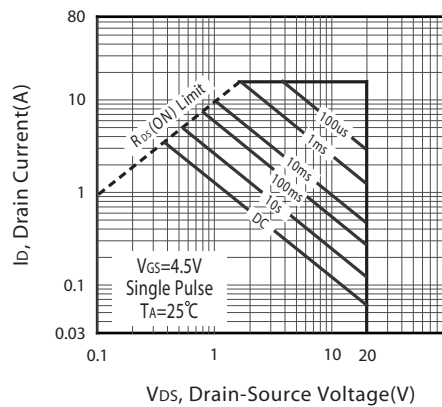
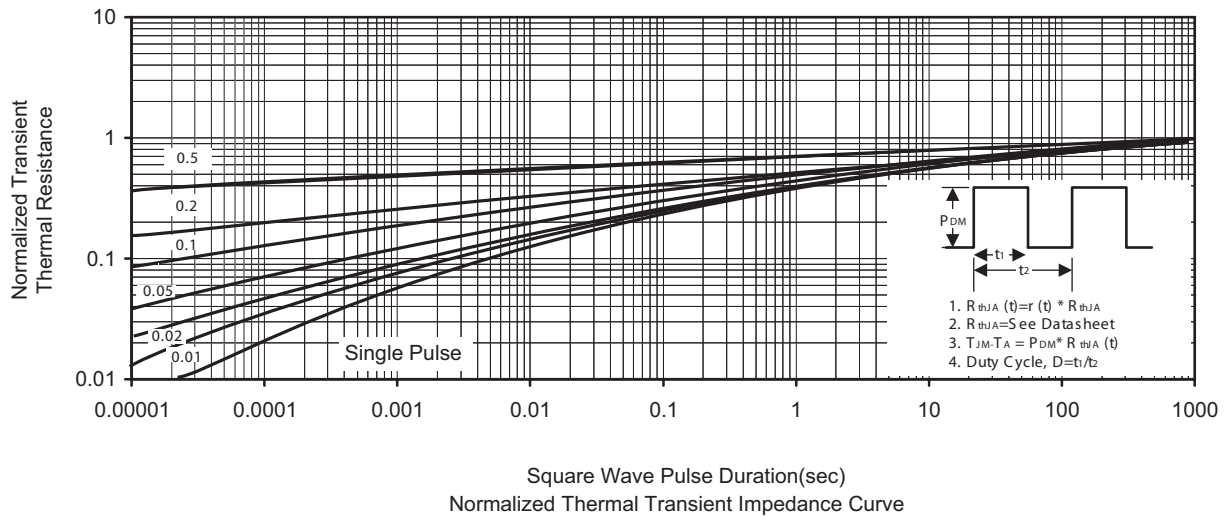


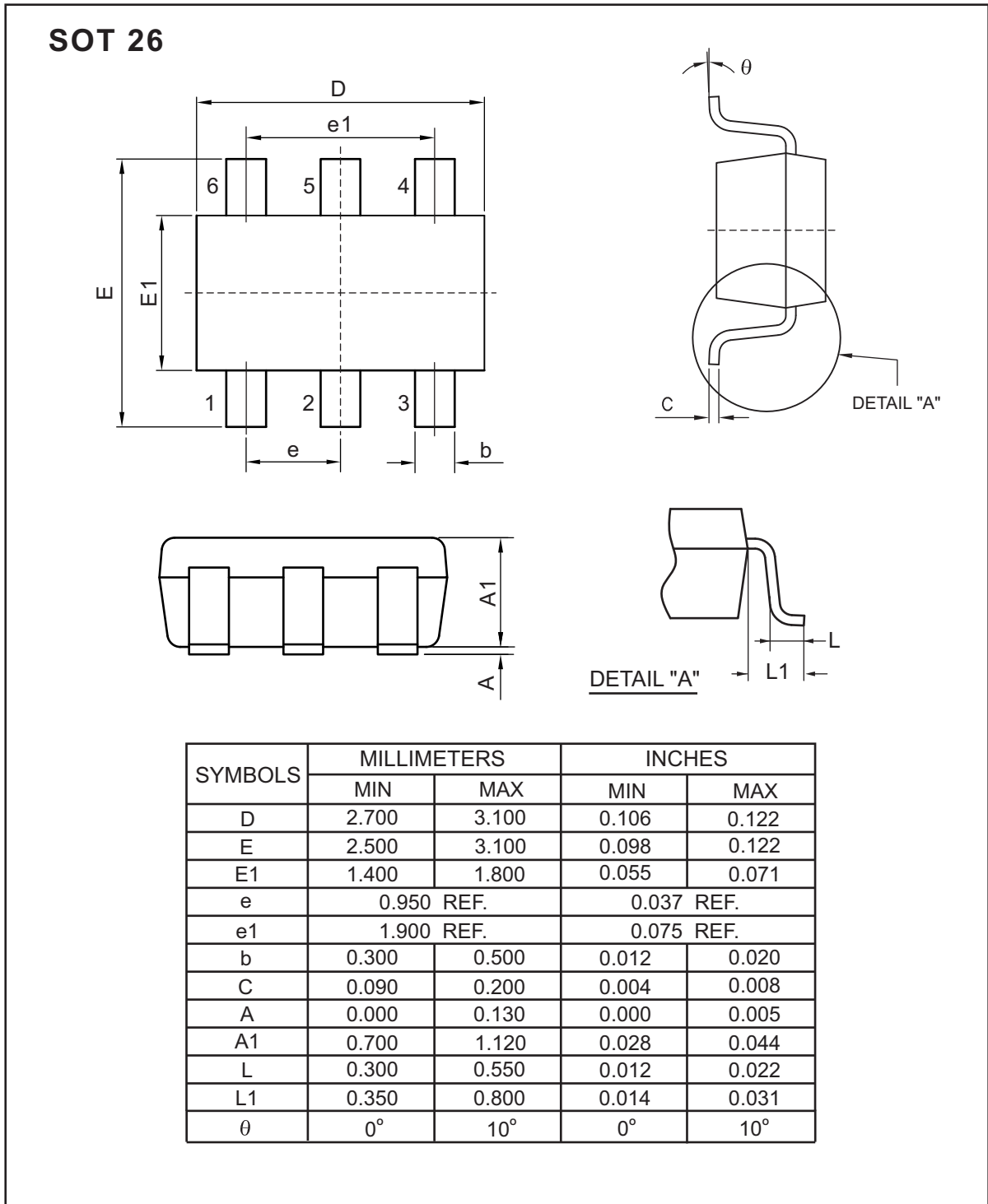
Figure 12. Maximum Safe Operating Area



STS2622A

Ver 2.0

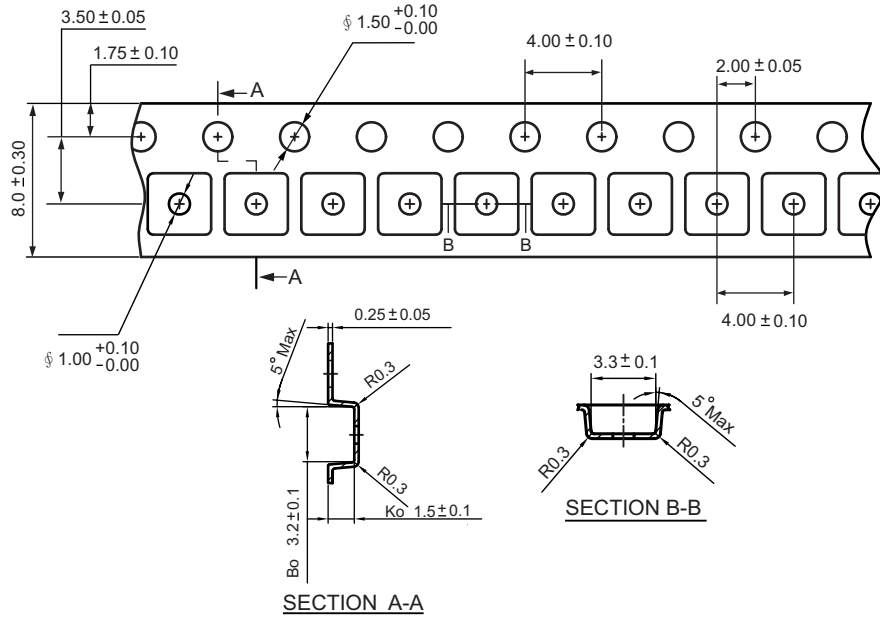
PACKAGE OUTLINE DIMENSIONS



Jul,22,2010

SOT 26 Tape and Reel Data

SOT 26 Carrier Tape



SOT 26 Reel

