



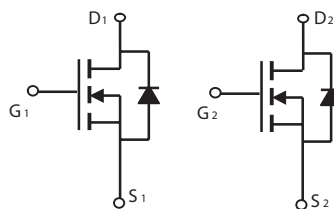
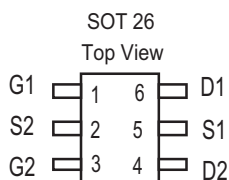
Dual N-Channel Enhancement Mode Field Effect Transistor

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

R _{θJA}	Thermal Resistance, Junction-to-Ambient ^a	100	°C/W
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STS2622A

Ver 2.0

ELECTRICAL CHARACTERISTICS (T_A=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 =250uA	20			V
I _{DSS}	Zero Gate Voltage Drain Current	V _{DS} =16V , V _{GS} =0V			1	uA
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 =250uA	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	V _{DS} =10V,I _D =3.4A, V _{GS} =4.5V		4.5		nC
Q _{gs}	Gate-Source Charge			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						
a.Surface Mounted on FR4 Board,t ≤ 10sec.						
b.Pulse Test:Pulse Width ≤ 300us, Duty Cycle ≤ 2%.						
c.Guaranteed by design, not subject to production testing.						

Jul,22,2010

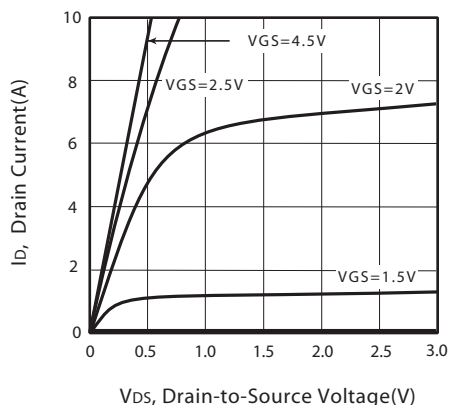


Figure 1. Output Characteristics

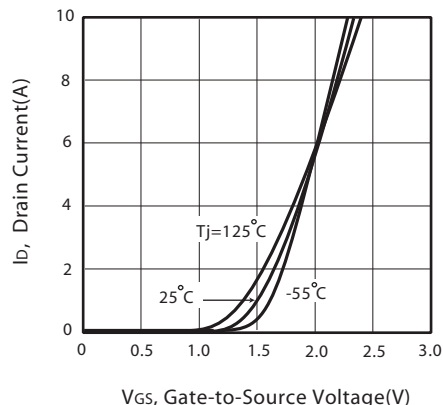


Figure 2. Transfer Characteristics

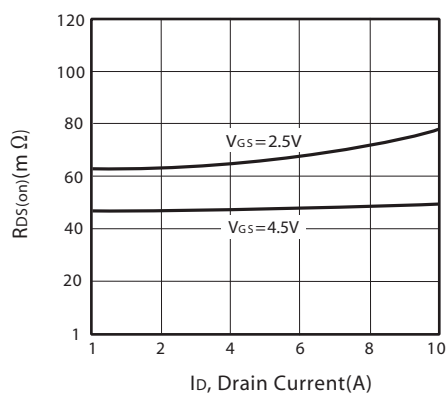


Figure 3. On-Resistance vs. Drain Current and Gate Voltage

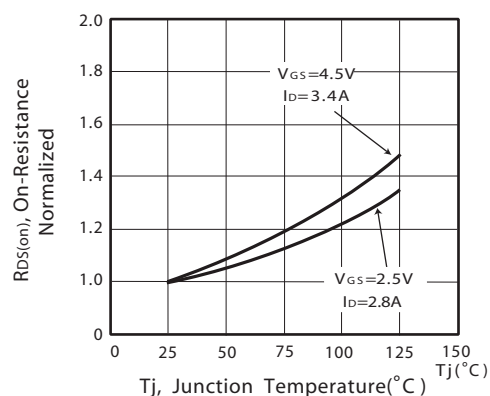


Figure 4. On-Resistance Variation with Drain Current and Temperature

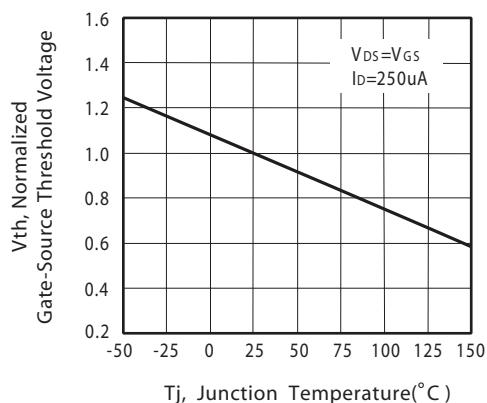


Figure 5. Gate Threshold Variation with Temperature

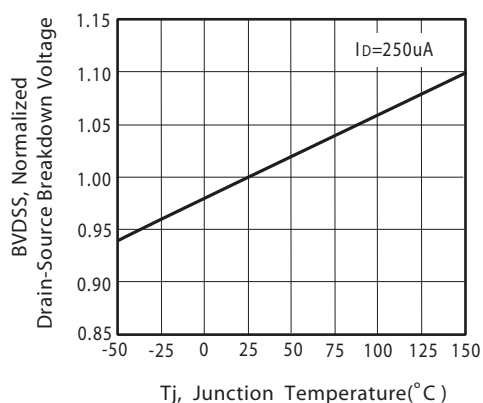
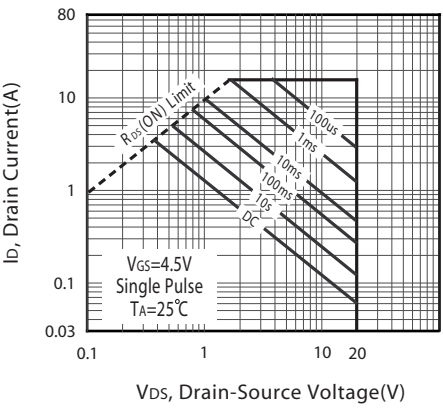
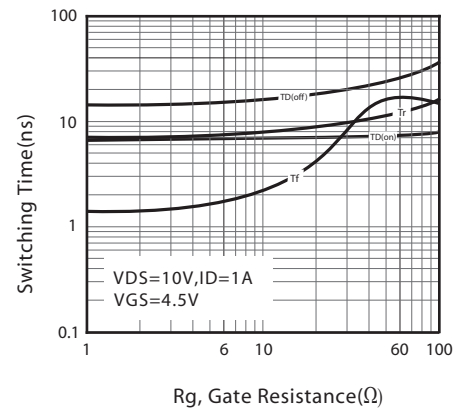
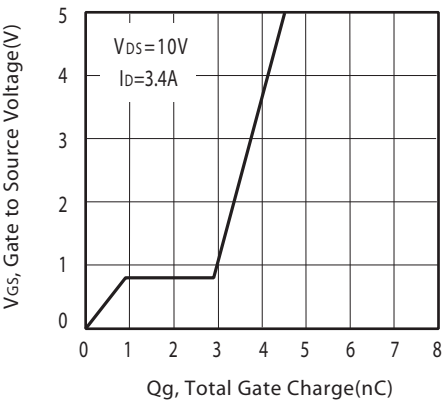
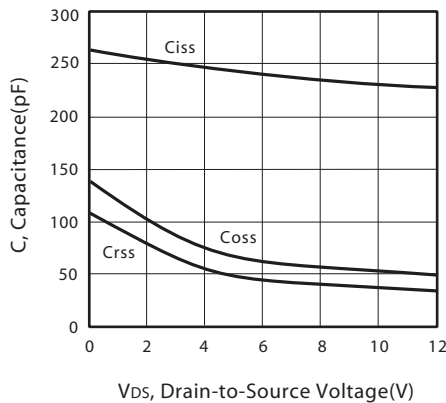
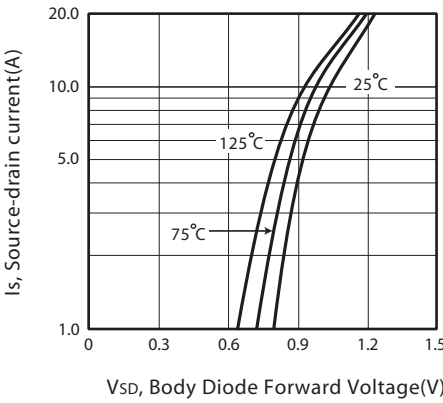
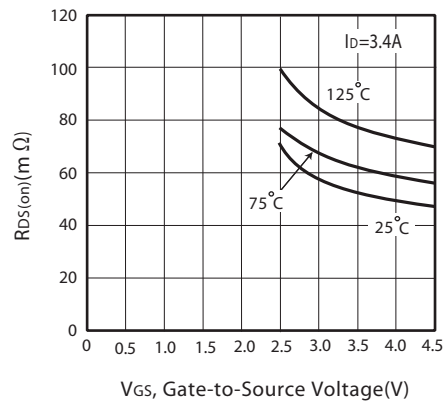
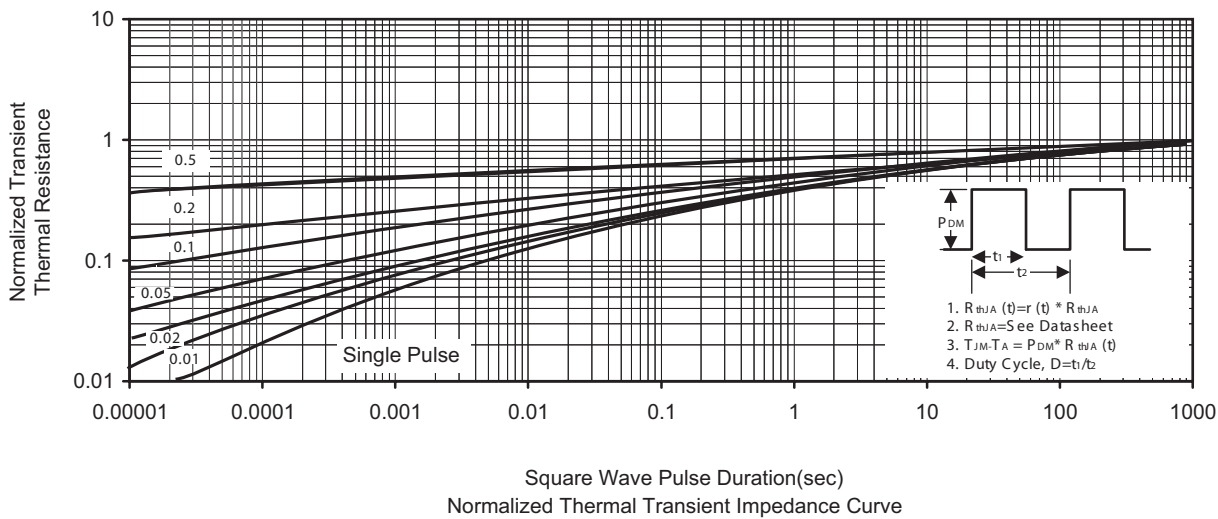


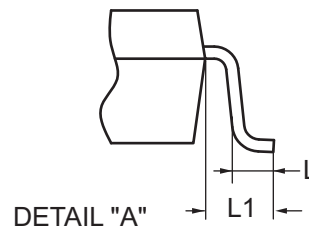
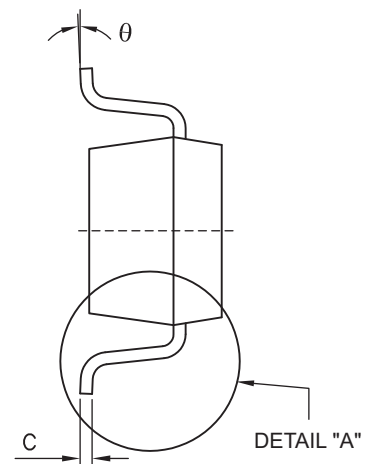
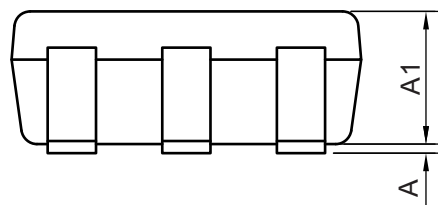
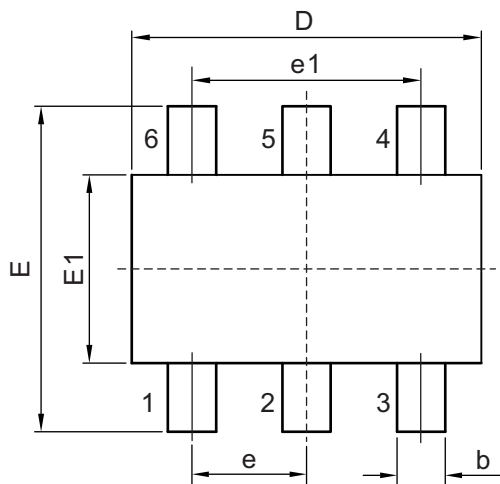
Figure 6. Breakdown Voltage Variation with Temperature





PACKAGE OUTLINE DIMENSIONS

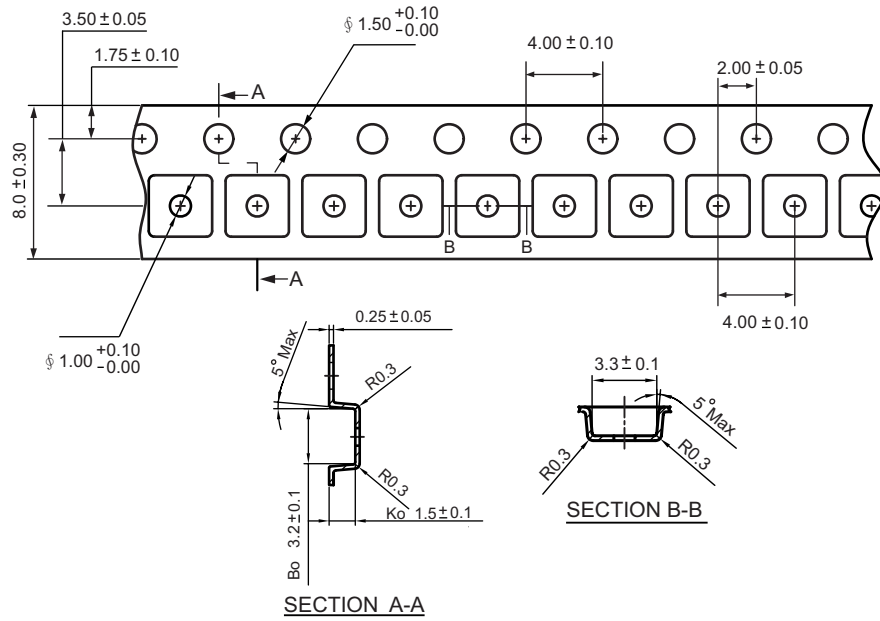
SOT 26



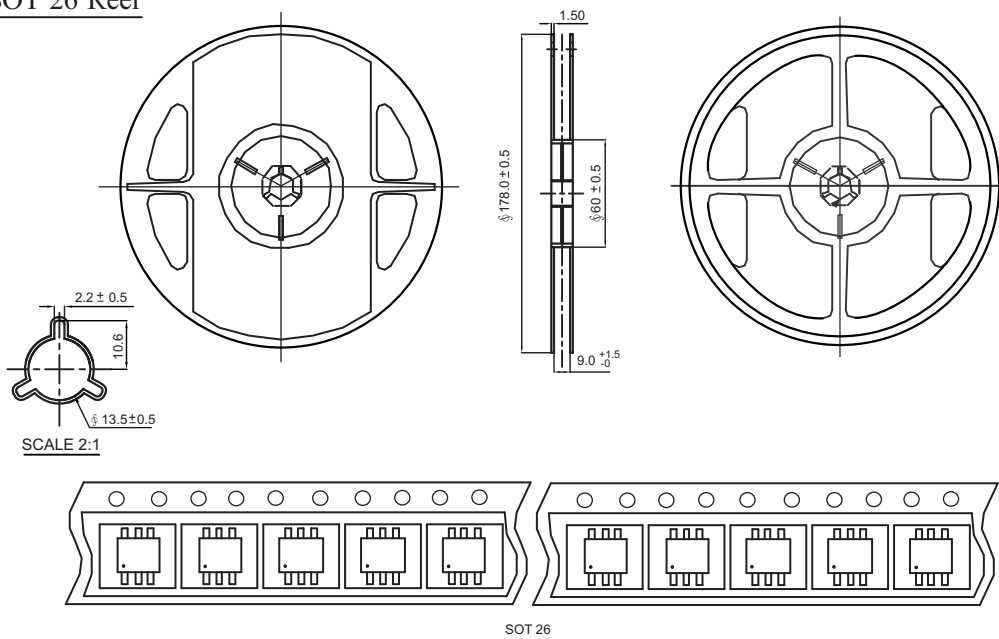
SYMBOLS	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
D	2.700	3.100	0.106	0.122
E	2.500	3.100	0.098	0.122
E1	1.400	1.800	0.055	0.071
e	0.950 REF.		0.037 REF.	
e1	1.900 REF.		0.075 REF.	
b	0.300	0.500	0.012	0.020
C	0.090	0.200	0.004	0.008
A	0.000	0.130	0.000	0.005
A1	0.700	1.120	0.028	0.044
L	0.300	0.550	0.012	0.022
L1	0.350	0.800	0.014	0.031
θ	0°	10°	0°	10°

SOT 26 Tape and Reel Data

SOT 26 Carrier Tape



SOT 26 Reel



SOT 26