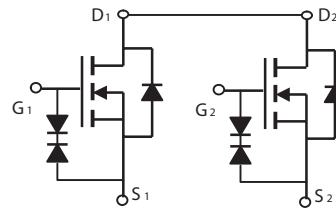
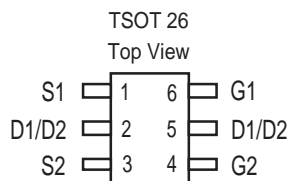


**Dual N-Channel Enhancement Mode Field Effect Transistor****PRODUCT SUMMARY**

V <sub>DSS</sub>	I <sub>D</sub>	R <sub>DS(ON)</sub> (mΩ) Max
20V	5A	27 @ V <sub>GS</sub> =4.5V
		28 @ V <sub>GS</sub> =4.0V
		30 @ V <sub>GS</sub> =3.7V
		33 @ V <sub>GS</sub> =3.1V
		38 @ V <sub>GS</sub> =2.5V

**FEATURES**

- Super high dense cell design for low R<sub>DS(ON)</sub>.
- Rugged and reliable.
- Surface Mount Package.
- ESD Protected.

**ABSOLUTE MAXIMUM RATINGS (T<sub>A</sub>=25°C unless otherwise noted)**

Symbol	Parameter	Limit	Units
V <sub>DS</sub>	Drain-Source Voltage	20	V
V <sub>GS</sub>	Gate-Source Voltage	±12	V
I <sub>D</sub>	Drain Current-Continuous <sup>a</sup>	T <sub>A</sub> =25°C	5.0
		T <sub>A</sub> =70°C	4.0
I <sub>DM</sub>	-Pulsed <sup>b</sup>	20	A
P <sub>D</sub>	Maximum Power Dissipation <sup>a</sup>	T <sub>A</sub> =25°C	1.25
		T <sub>A</sub> =70°C	0.8
T <sub>J</sub> , T <sub>STG</sub>	Operating Junction and Storage Temperature Range	-55 to 150	°C

**THERMAL CHARACTERISTICS**

R <sub>θJA</sub>	Thermal Resistance, Junction-to-Ambient <sup>a</sup>	100	°C/W
------------------	------------------------------------------------------	-----	------

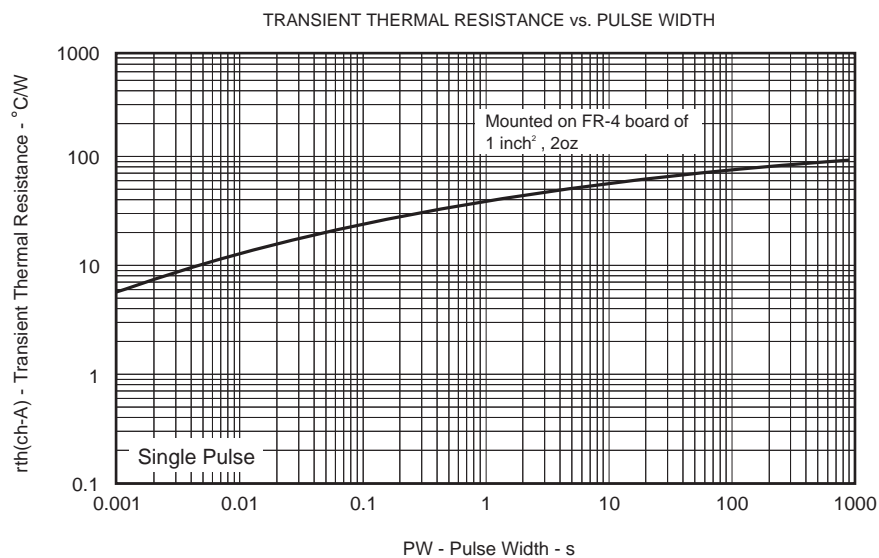
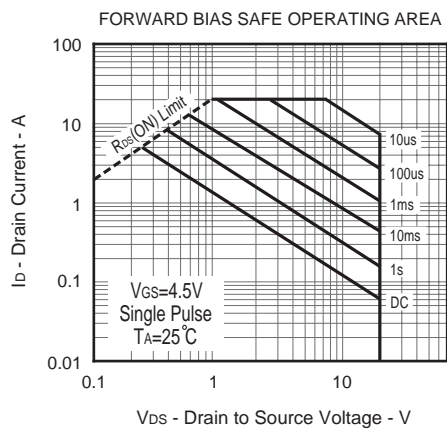
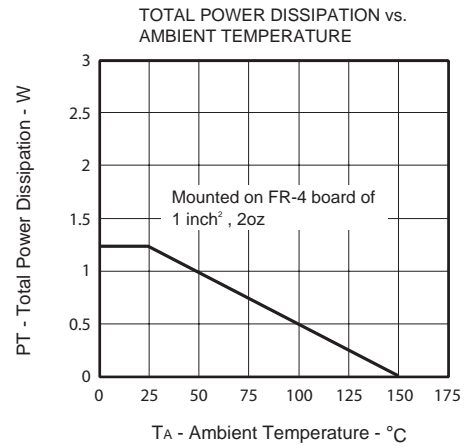
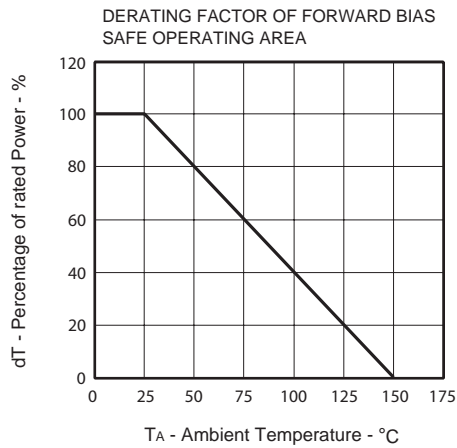
# STS8202

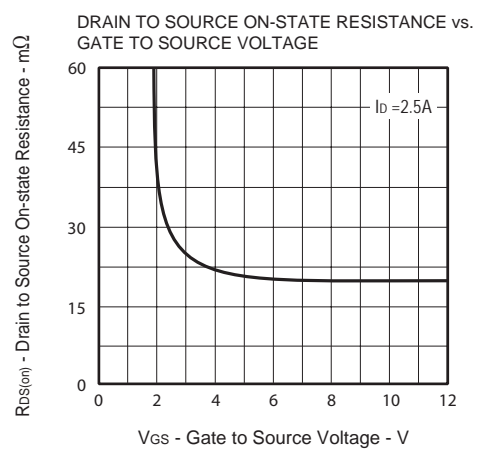
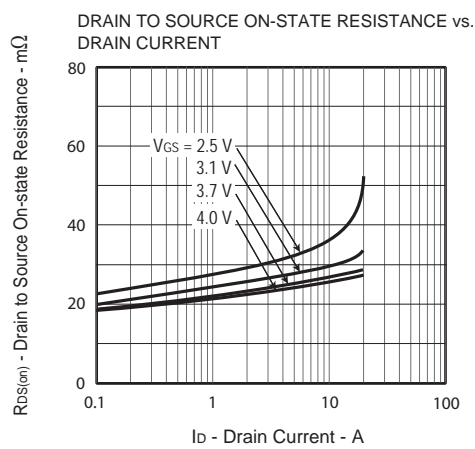
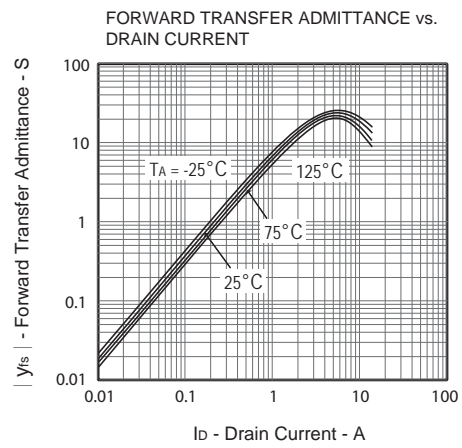
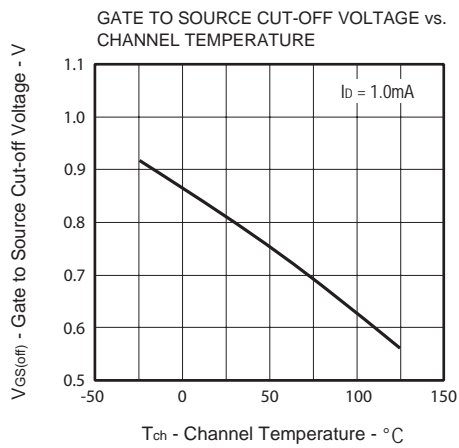
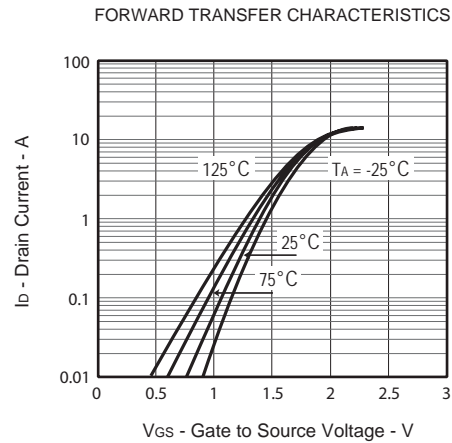
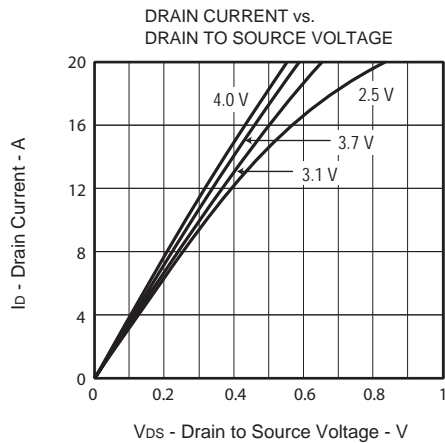
Ver 1.1

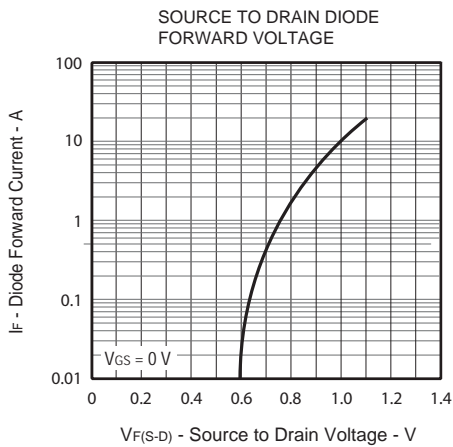
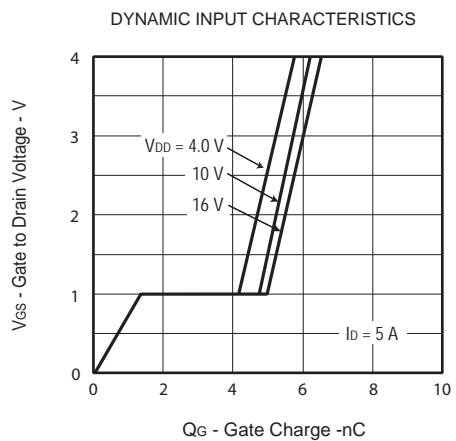
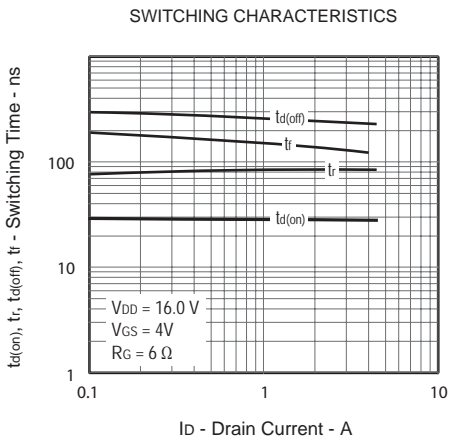
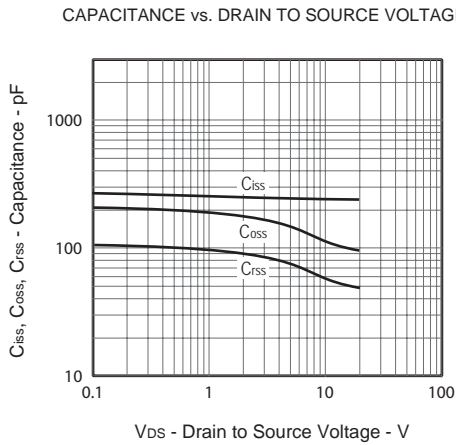
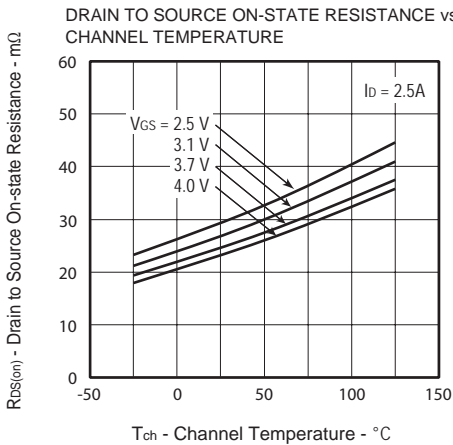
## ELECTRICAL CHARACTERISTICS (T<sub>A</sub>=25°C unless otherwise noted)

Symbol	Parameter	Conditions	Min	Typ	Max	Units
OFF CHARACTERISTICS						
BV <sub>DSS</sub>	Drain-Source Breakdown Voltage	V <sub>GS</sub> =0V , I <sub>D</sub> =250uA	20			V
I <sub>DSS</sub>	Zero Gate Voltage Drain Current	V <sub>DS</sub> =16V , V <sub>GS</sub> =0V			1	uA
I <sub>GSS</sub>	Gate-Body Leakage Current	V <sub>GS</sub> = ±12V , V <sub>DS</sub> =0V			±10	uA
ON CHARACTERISTICS						
V <sub>GS(th)</sub>	Gate Threshold Voltage	V <sub>DS</sub> =V <sub>GS</sub> , I <sub>D</sub> =1mA	0.5	0.8	1.5	V
R <sub>DS(ON)</sub>	Drain-Source On-State Resistance	V <sub>GS</sub> =4.5V , I <sub>D</sub> =2.5A	18.5	22.0	27.0	m ohm
		V <sub>GS</sub> =4.0V , I <sub>D</sub> =2.5A	19.0	23.0	28.0	m ohm
		V <sub>GS</sub> =3.7V , I <sub>D</sub> =2.5A	19.5	25.0	30.0	m ohm
		V <sub>GS</sub> =3.1V , I <sub>D</sub> =2.5A	20.0	27.0	33.0	m ohm
		V <sub>GS</sub> =2.5V , I <sub>D</sub> =2.5A	21.0	29.0	38.0	m ohm
g <sub>FS</sub>	Forward Transconductance	V <sub>DS</sub> =5V , I <sub>D</sub> =2.5A		15		S
DYNAMIC CHARACTERISTICS <sup>°</sup>						
C <sub>ISS</sub>	Input Capacitance	V <sub>DS</sub> =10V,V <sub>GS</sub> =0V f=1.0MHz		240		pF
C <sub>OSS</sub>	Output Capacitance			120		pF
C <sub>RSS</sub>	Reverse Transfer Capacitance			57		pF
SWITCHING CHARACTERISTICS <sup>°</sup>						
t <sub>D(ON)</sub>	Turn-On Delay Time	V <sub>DD</sub> =16V I <sub>D</sub> =2.5A V <sub>GS</sub> =4.5V R <sub>GEN</sub> = 6 ohm		30		ns
t <sub>r</sub>	Rise Time			92		ns
t <sub>D(OFF)</sub>	Turn-Off Delay Time			240		ns
t <sub>f</sub>	Fall Time			145		ns
Q <sub>g</sub>	Total Gate Charge	V <sub>DS</sub> =16V,I <sub>D</sub> =5A, V <sub>GS</sub> =4.5V		6.4		nC
Q <sub>gs</sub>	Gate-Source Charge			1.3		nC
Q <sub>gd</sub>	Gate-Drain Charge			3.7		nC
DRAIN-SOURCE DIODE CHARACTERISTICS AND MAXIMUM RATINGS						
V <sub>SD</sub>	Diode Forward Voltage	V <sub>GS</sub> =0V,I <sub>S</sub> =2A		0.83	1.2	V
Notes						
a.Surface Mounted on FR4 Board,t < 10sec.						
b.Pulse Test:Pulse Width < 10us, Duty Cycle < 1%.						
c.Guaranteed by design, not subject to production testing.						

Jun,18,2014

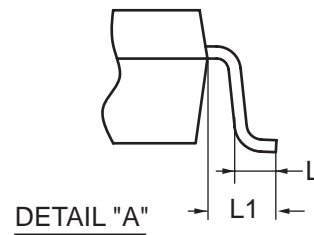
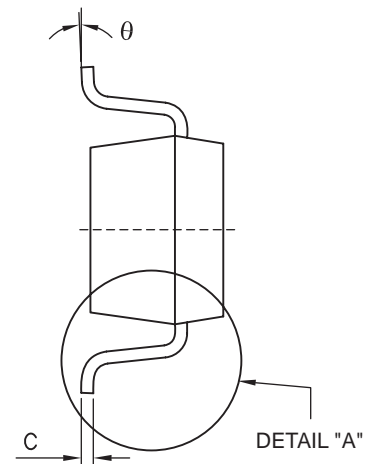
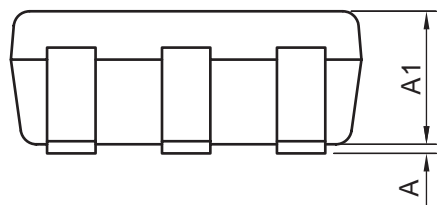
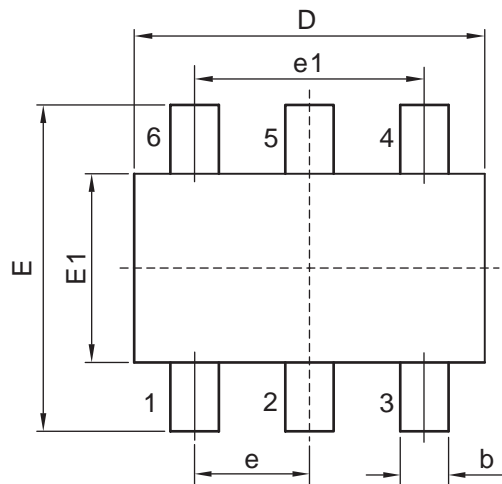






## PACKAGE OUTLINE DIMENSIONS

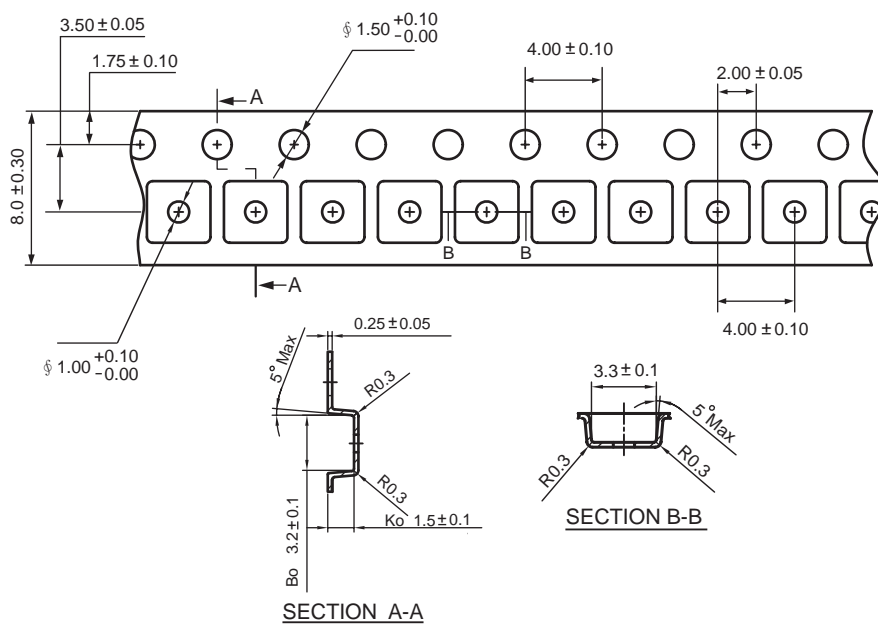
### TSOT 26



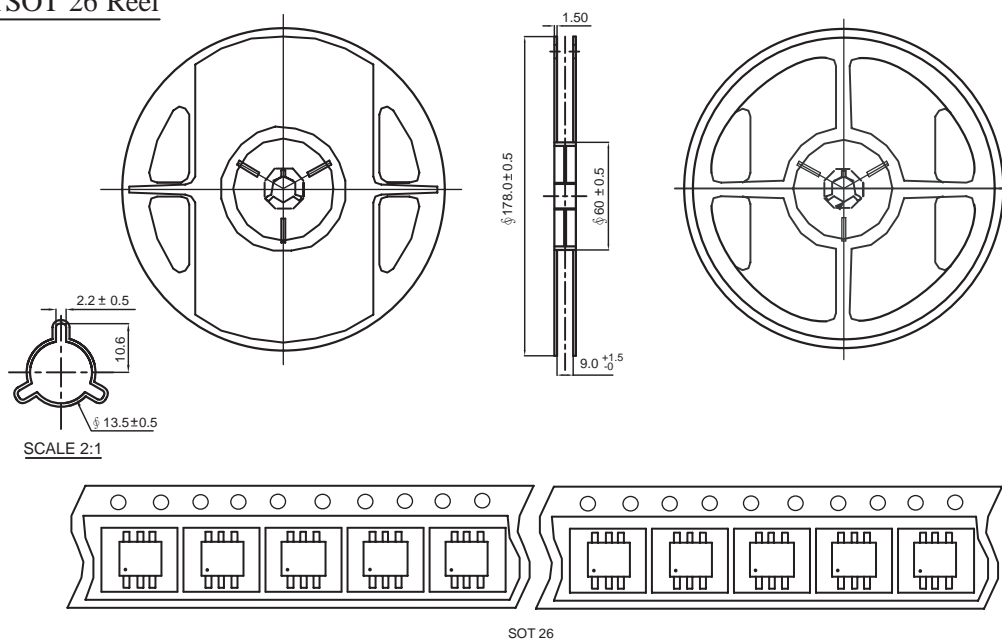
SYMBOLS	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
D	2.692	3.099	0.106	0.122
E	2.591	3.000	0.102	0.118
E1	1.397	1.803	0.055	0.071
e	0.950 REF.		0.037 REF.	
e1	1.900 REF.		0.075 REF.	
b	0.300	0.500	0.012	0.020
C	0.080	0.200	0.003	0.008
A	0.000	0.100	0.000	0.004
A1	0.700	0.800	0.028	0.032
L	0.300	0.600	0.012	0.024
L1	0.600 REF.		0.023 REF.	
θ	0°	6°	0°	6°

## TSOT 26 Tape and Reel Data

### TSOT 26 Carrier Tape



### TSOT 26 Reel



## TOP MARKING DEFINITION

### TSOT-26

