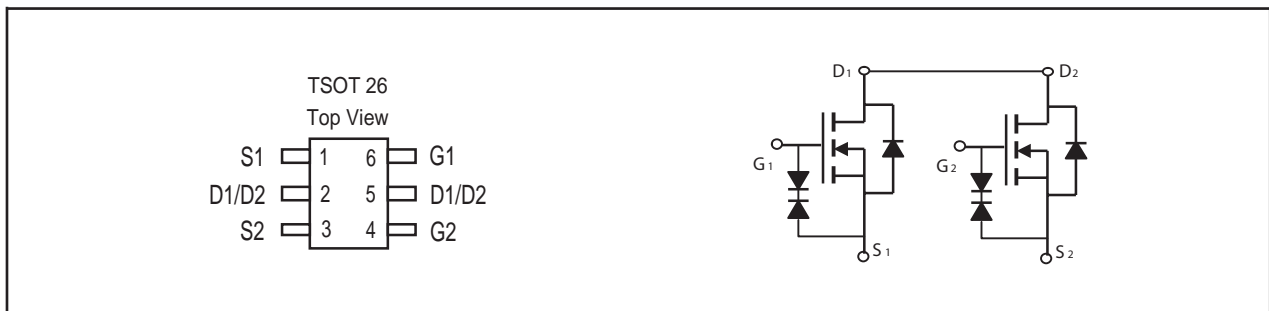


**Dual N-Channel Enhancement Mode Field Effect Transistor**

PRODUCT SUMMARY		
V _{DSS}	I _D	R _{DS(ON)} (mΩ) Max
20V	7A	16.0 @ V _{GS} =4.0V
		16.5 @ V _{GS} =3.7V
		18.0 @ V _{GS} =3.1V
		22.0 @ V _{GS} =2.5V

FEATURES

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

**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	7
		T _A =70°C	5.6
I _{DM}	-Pulsed ^b	27	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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STS8213

Ver 1.0

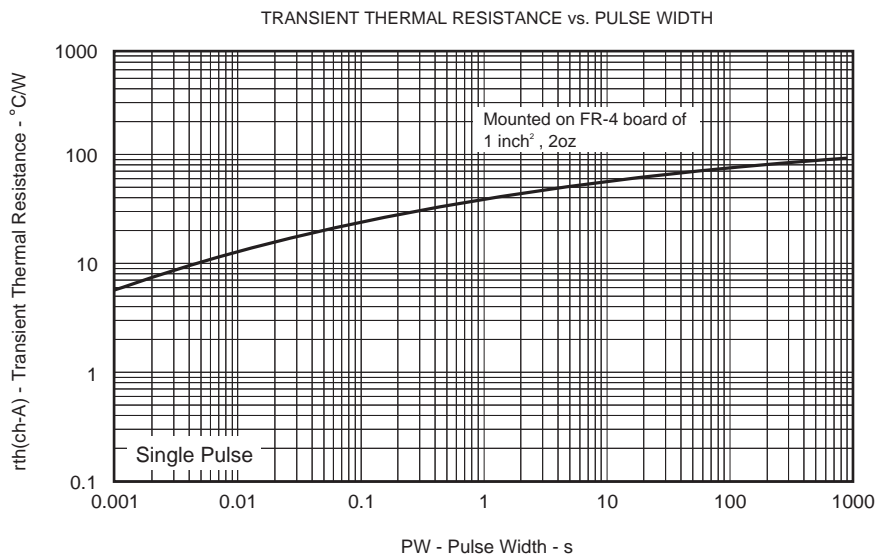
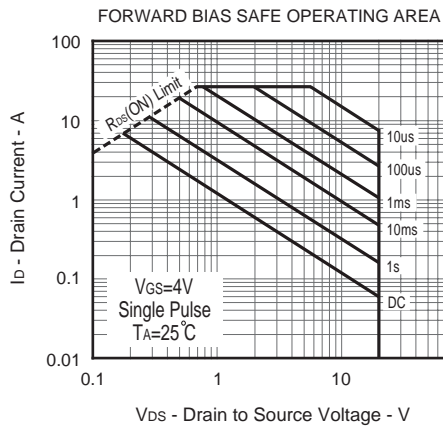
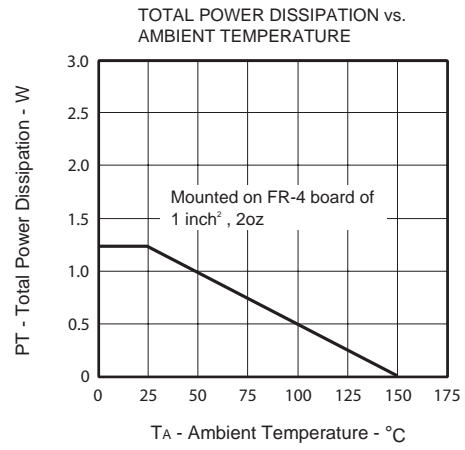
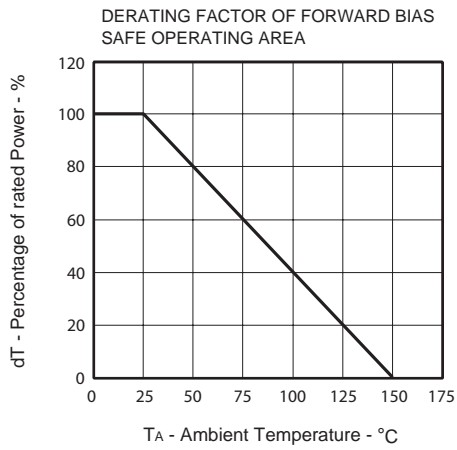
ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted)

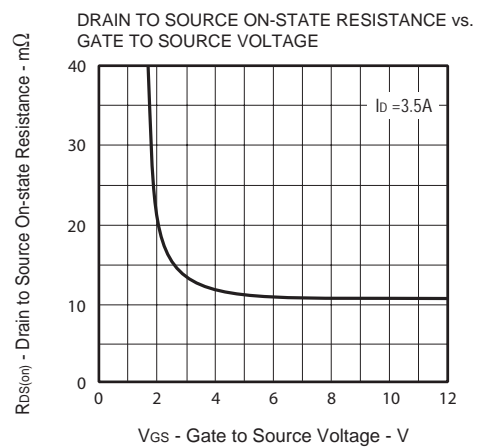
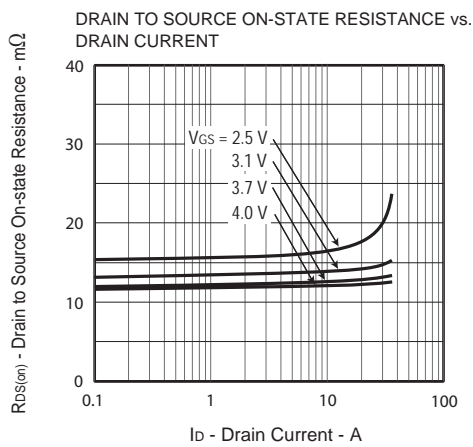
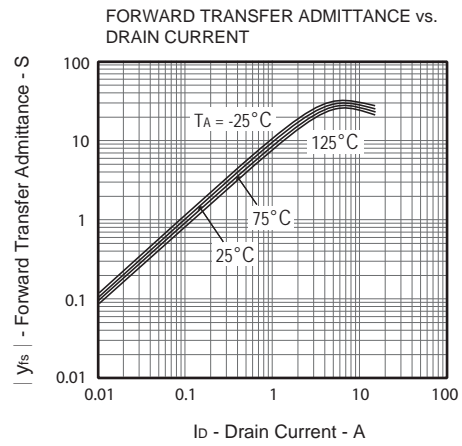
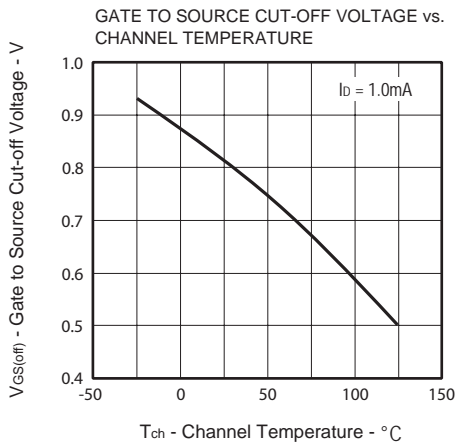
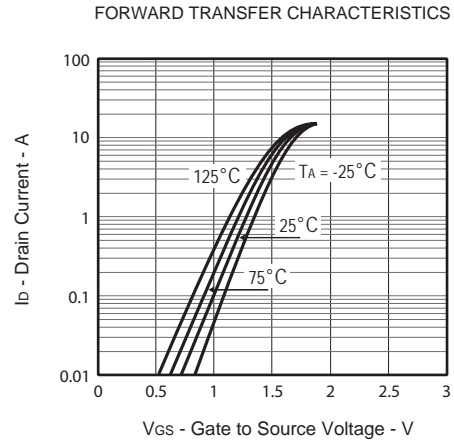
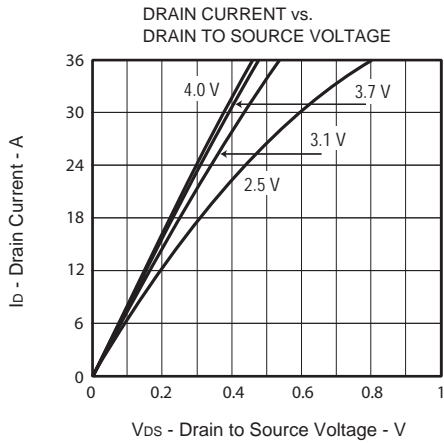
Symbol	Parameter	Conditions	Min	Typ	Max	Units
OFF CHARACTERISTICS						
BV _{DSS}	Drain-Source Breakdown Voltage	V _{GS} =0V , I _D =250uA	20			V
I _{DSS}	Zero Gate Voltage Drain Current	V _{DS} =16V , V _{GS} =0V			1	uA
I _{GSS}	Gate-Body Leakage Current	V _{GS} = ±12V , V _{DS} =0V			±10	uA
ON CHARACTERISTICS						
V _{GS(th)}	Gate Threshold Voltage	V _{DS} =V _{GS} , I _D =1mA	0.5	0.9	1.5	V
R _{DS(ON)}	Drain-Source On-State Resistance	V _{GS} =4.0V , I _D =3.5A	9.0	12.0	16.0	m ohm
		V _{GS} =3.7V , I _D =3.5A	9.5	12.5	16.5	m ohm
		V _{GS} =3.1V , I _D =3.5A	10.0	13.5	18.0	m ohm
		V _{GS} =2.5V , I _D =3.5A	12.0	16.0	22	m ohm
g _{FS}	Forward Transconductance	V _{DS} =5V , I _D =3.5A		22		S
DYNAMIC CHARACTERISTICS ^c						
C _{ISS}	Input Capacitance	V _{DS} =10V, V _{GS} =0V f=1.0MHz		573		pF
C _{OSS}	Output Capacitance			172		pF
C _{RSS}	Reverse Transfer Capacitance			130		pF
SWITCHING CHARACTERISTICS ^c						
t _{D(ON)}	Turn-On Delay Time	V _{DD} =16V I _D =3.5A V _{GS} =4V R _{GEN} = 6 ohm		17		ns
t _r	Rise Time			41		ns
t _{D(OFF)}	Turn-Off Delay Time			35		ns
t _f	Fall Time			53		ns
Q _g	Total Gate Charge	V _{DS} =16V, I _D =7A, V _{GS} =4V		9.5		nC
Q _{gs}	Gate-Source Charge			2.2		nC
Q _{gd}	Gate-Drain Charge			5.8		nC
DRAIN-SOURCE DIODE CHARACTERISTICS AND MAXIMUM RATINGS						
V _{SD}	Diode Forward Voltage	V _{GS} =0V, I _S =7A		0.86	1.2	V

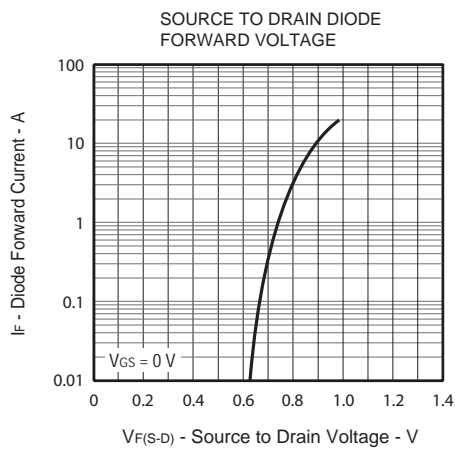
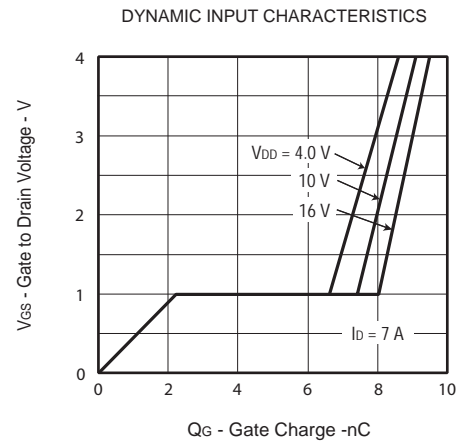
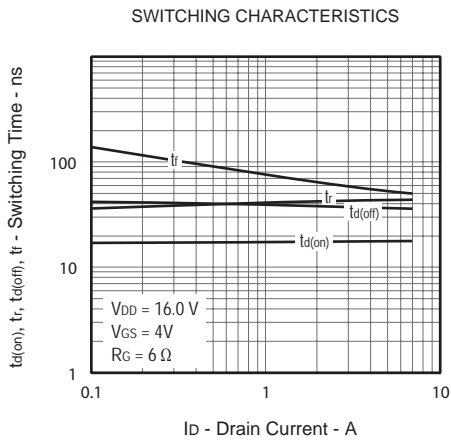
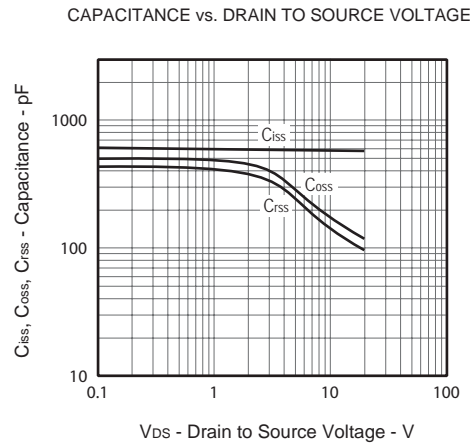
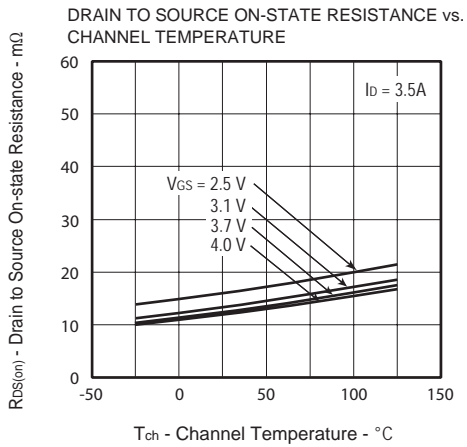
Notes

- 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.

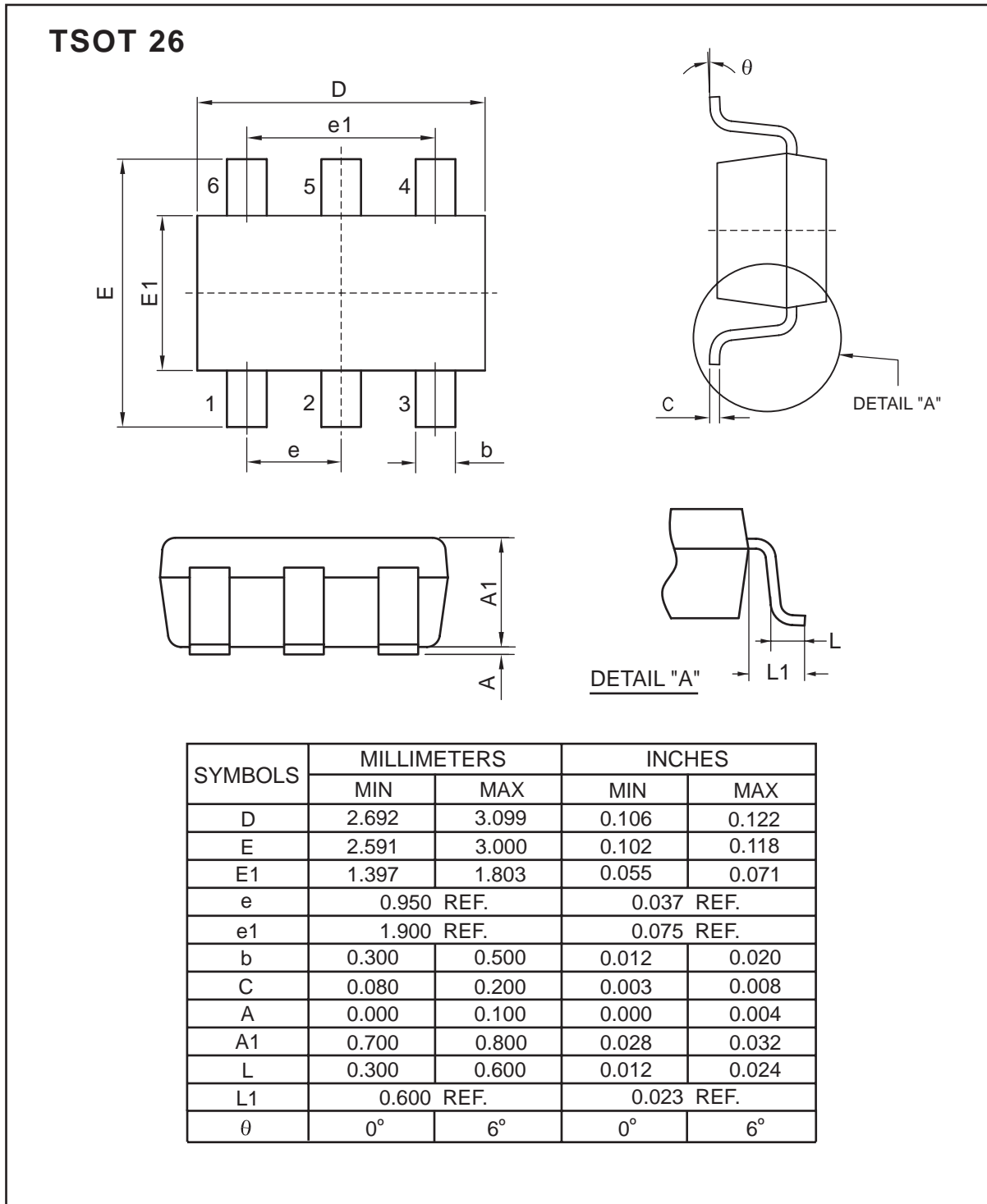
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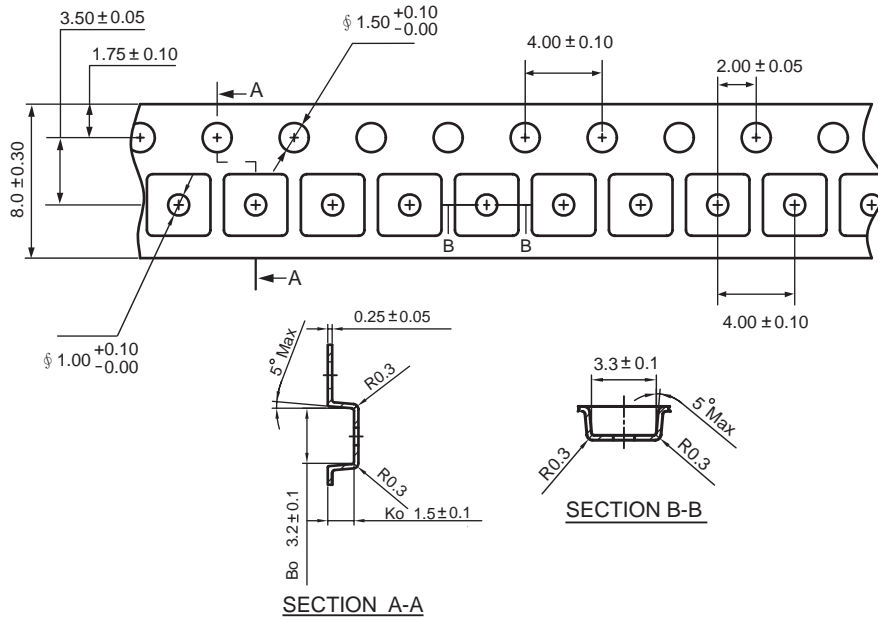


PACKAGE OUTLINE DIMENSIONS



TSOT 26 Tape and Reel Data

TSOT 26 Carrier Tape



TSOT 26 Reel

