



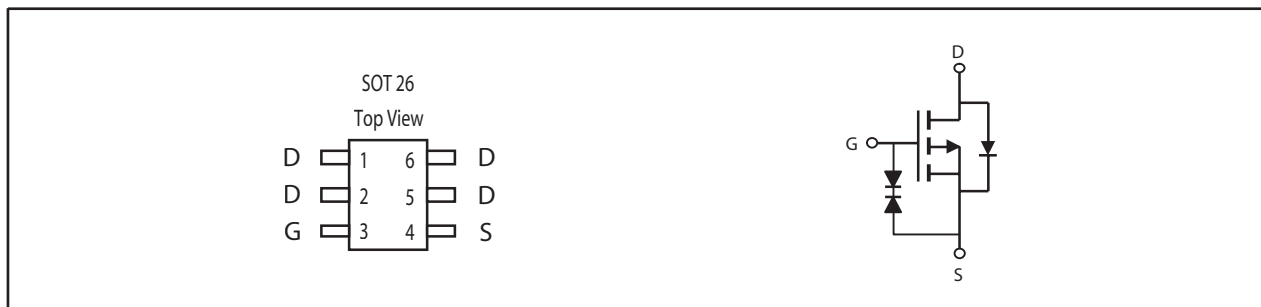
P-Channel Enhancement Mode Field Effect Transistor

PRODUCT SUMMARY

V _{DSS}	I _D	R _{DS(ON)} (mΩ) Max
-20V	-4.0A	49 @ V _{GS} =-4.5V
		50 @ V _{GS} =-4.0V
		52 @ V _{GS} =-3.7V
		58 @ V _{GS} =-3.1V
		65 @ 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	±10	V
I _D	Drain Current-Continuous ^a	T _A =25°C	-4.0
		T _A =70°C	-3.2
I _{DM}	-Pulsed ^b	-15	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

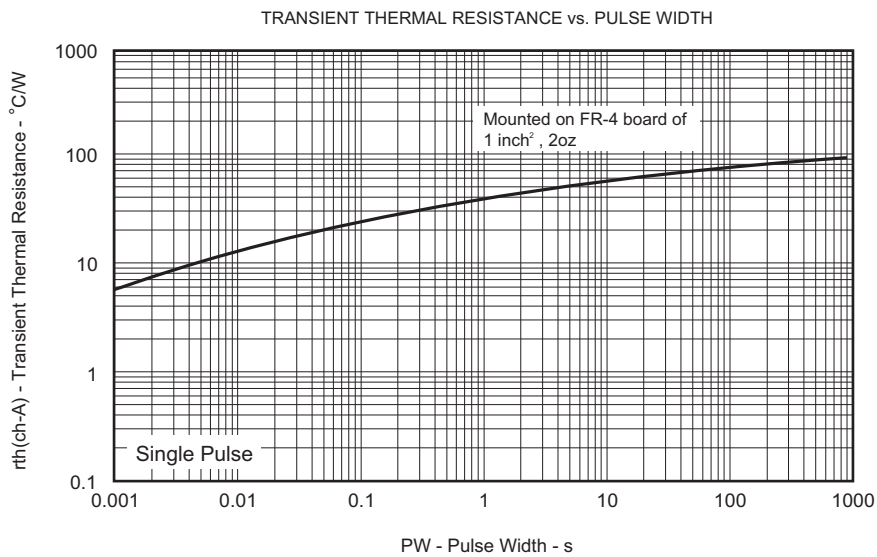
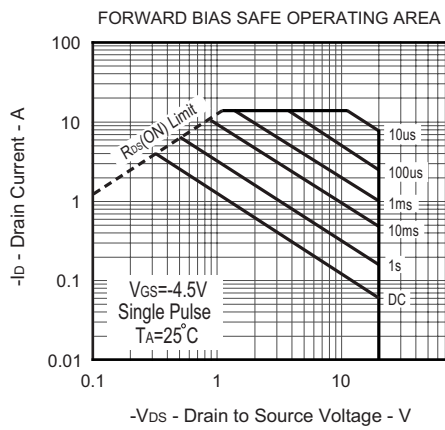
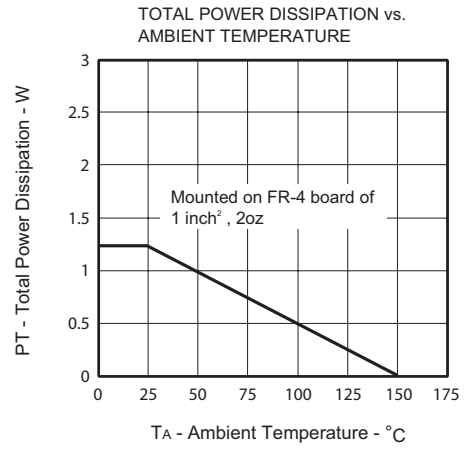
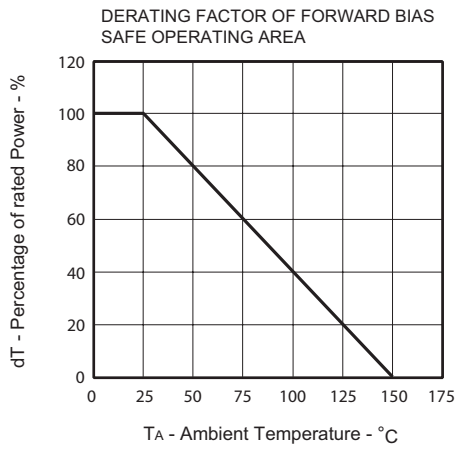
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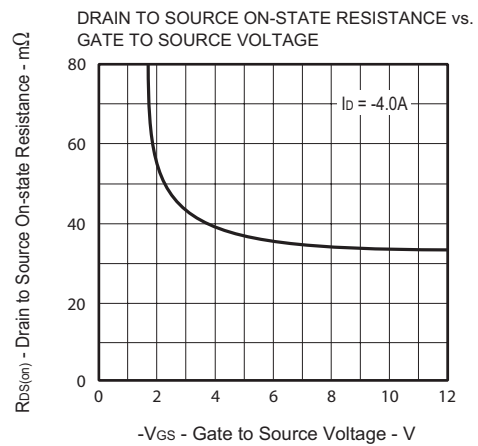
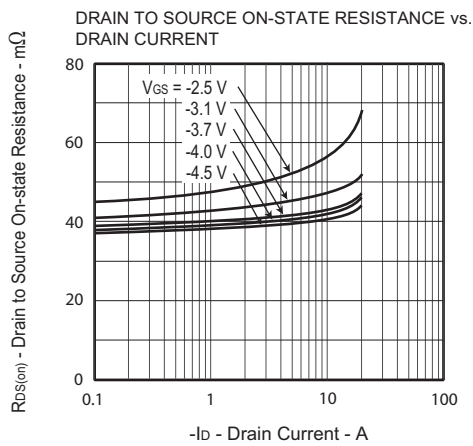
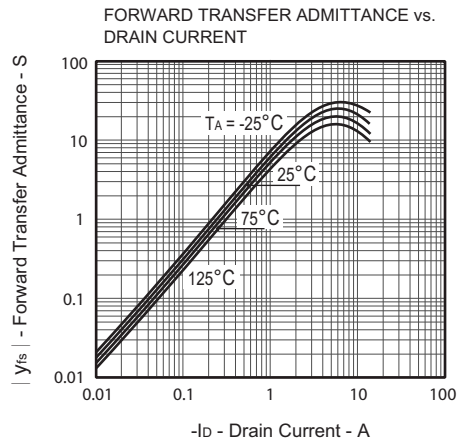
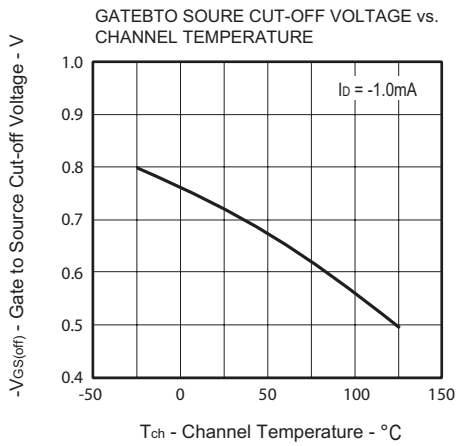
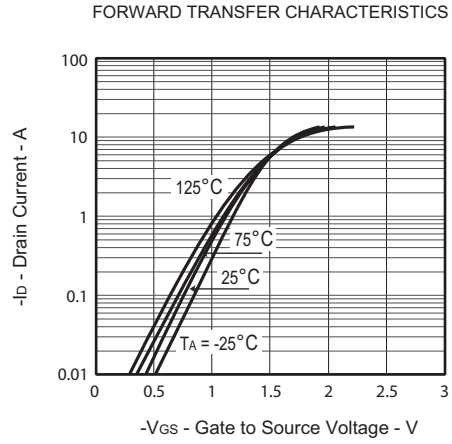
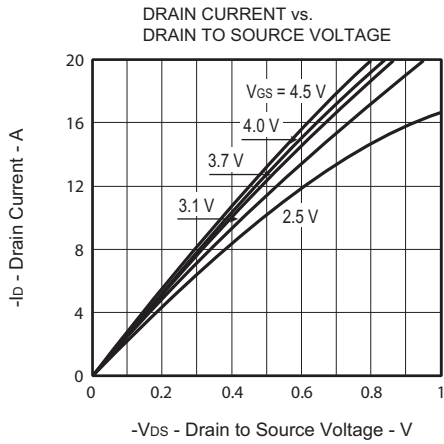
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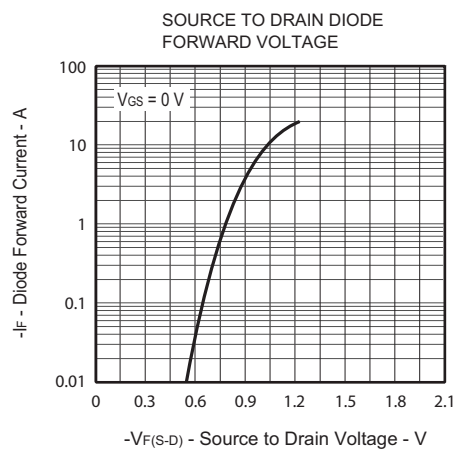
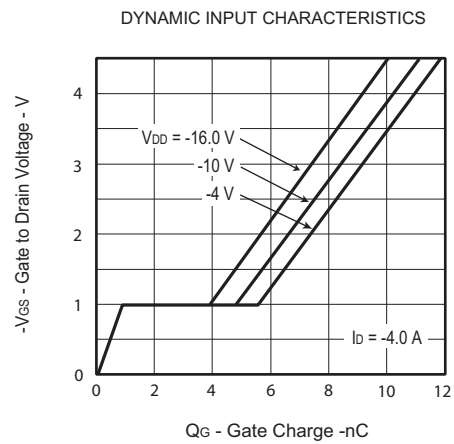
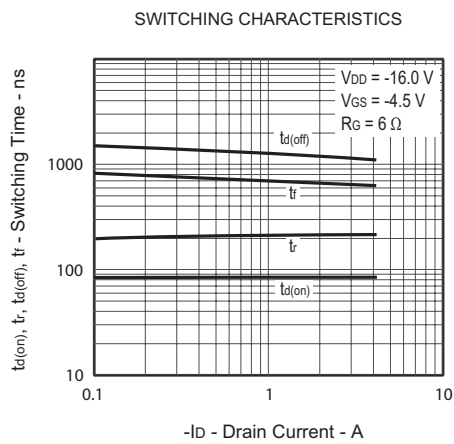
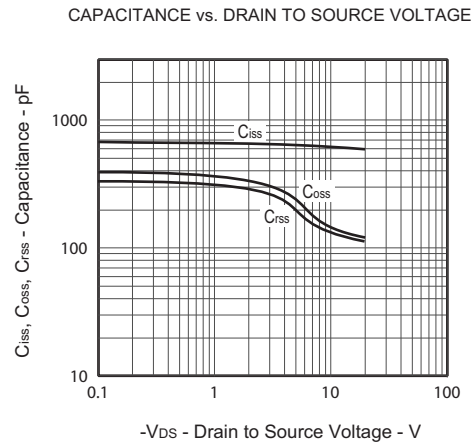
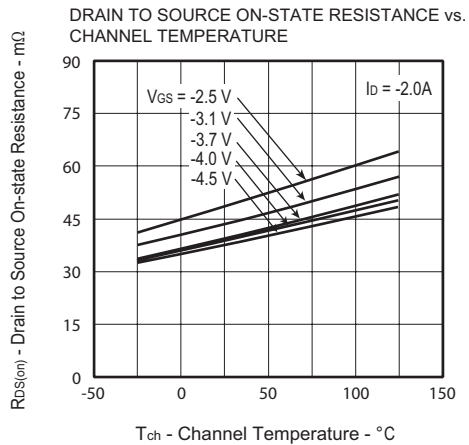
ELECTRICAL CHARACTERISTICS (TA=25°C unless otherwise noted)

Symbol	Parameter	Conditions	Min	Typ	Max	Units
OFF CHARACTERISTICS						
BV _{DSS}	Drain-Source Breakdown Voltage	V _{GS} =0V , I _D =-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} = ±10V , V _{DS} =0V			±10	uA
ON CHARACTERISTICS						
V _{GS(th)}	Gate Threshold Voltage	V _{DS} =V _{GS} , I _D =-1mA	-0.5	-0.7	-1.5	V
R _{DS(ON)}	Drain-Source On-State Resistance	V _{GS} =-4.5V , I _D =-2.0A	31	38	49	m ohm
		V _{GS} =-4.0V , I _D =-2.0A	32	39	50	m ohm
		V _{GS} =-3.7V , I _D =-2.0A	33	40	52	m ohm
		V _{GS} =-3.1V , I _D =-2.0A	36	44	58	m ohm
		V _{GS} =-2.5V , I _D =-2.0A	39	49	65	m ohm
g _{FS}	Forward Transconductance	V _{DS} =-5V , I _D =-2.0A		11		S
DYNAMIC CHARACTERISTICS ^c						
C _{ISS}	Input Capacitance	V _{DS} =-10V, V _{GS} =0V f=1.0MHz		613		pF
C _{OSS}	Output Capacitance			159		pF
C _{RSS}	Reverse Transfer Capacitance			141		pF
SWITCHING CHARACTERISTICS ^c						
t _{D(ON)}	Turn-On Delay Time	V _{DD} =-16V I _D =-2.0A V _{GS} =-4.5V R _{GEN} = 6 ohm		85		ns
t _r	Rise Time			225		ns
t _{D(OFF)}	Turn-Off Delay Time			1310		ns
t _f	Fall Time			605		ns
Q _g	Total Gate Charge				11.8	
Q _{gs}	Gate-Source Charge	V _{DS} =-16V, I _D =-4.0A, V _{GS} =-4.5V		0.85		nC
Q _{gd}	Gate-Drain Charge			4.7		nC
DRAIN-SOURCE DIODE CHARACTERISTICS AND MAXIMUM RATINGS						
V _{SD}	Diode Forward Voltage	V _{GS} =0V, I _S =-1.1A		-0.8	-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.						

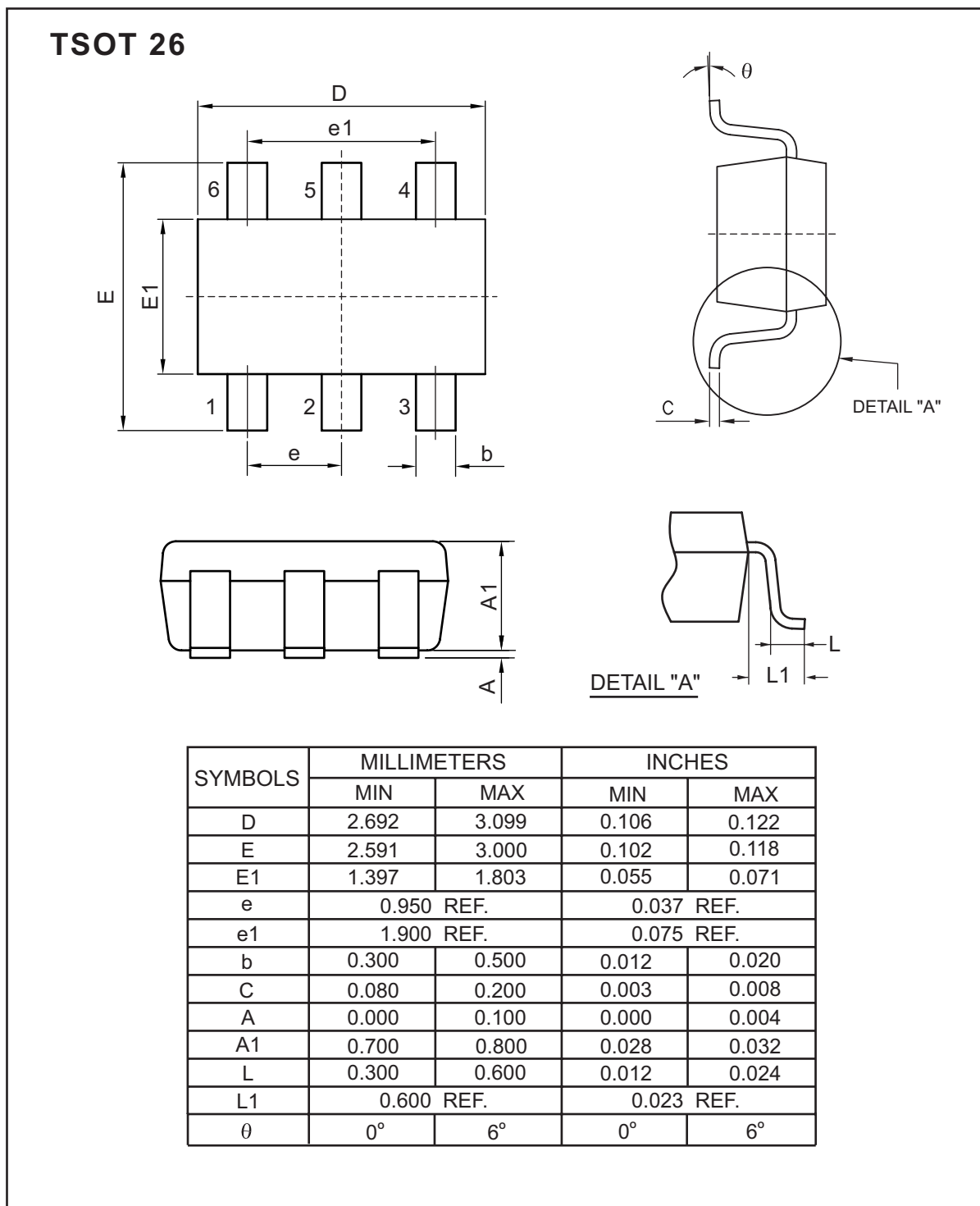
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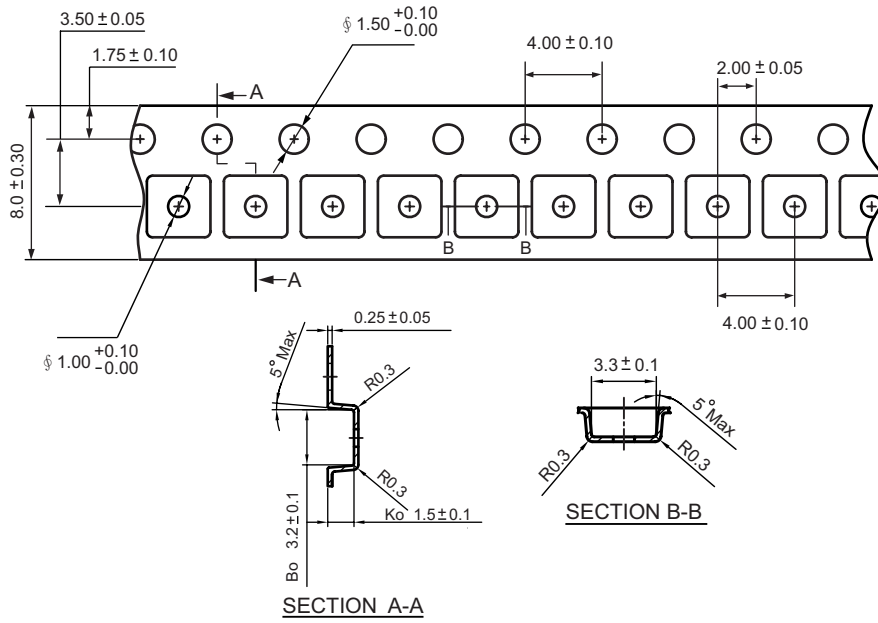


PACKAGE OUTLINE DIMENSIONS



TSOT 26 Tape and Reel Data

TSOT 26 Carrier Tape



TSOT 26 Reel

