



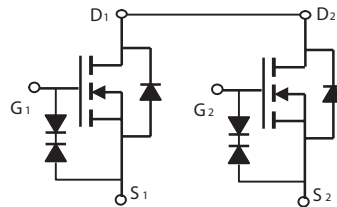
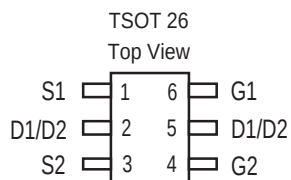
Dual N-Channel Enhancement Mode Field Effect Transistor

PRODUCT SUMMARY

V _{DSS}	I _D	R _{DS(ON)} (mΩ) Max
30V	2.6A	86 @ V _{GS} =10V
		100 @ V _{GS} =4.5V
		128 @ 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		30	V
V _{GS}	Gate-Source Voltage		±12	V
I _D	Drain Current-Continuous ^a	T _A =25°C	2.6	A
		T _A =70°C	2.1	A
I _{DM}	-Pulsed ^b		10	A
P _D	Maximum Power Dissipation ^a	T _A =25°C	1.25	W
		T _A =70°C	0.8	W
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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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	30			V
I _{DSS}	Zero Gate Voltage Drain Current	V _{DS} =24V , 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 =250uA	0.5	0.9	1.5	V
R _{DS(ON)}	Drain-Source On-State Resistance	V _{GS} =10V , I _D =1.3A		69	86	m ohm
		V _{GS} =4.5V , I _D =1.2A		77	100	m ohm
		V _{GS} =2.5V , I _D =1.1A		95	128	m ohm
g _{FS}	Forward Transconductance	V _{DS} =10V , I _D =1.3A		9.2		S
DYNAMIC CHARACTERISTICS [°]						
C _{ISS}	Input Capacitance	V _{DS} =15V,V _{GS} =0V f=1.0MHz		203		pF
C _{OSS}	Output Capacitance			26		pF
C _{RSS}	Reverse Transfer Capacitance			15		pF
SWITCHING CHARACTERISTICS [°]						
t _{D(ON)}	Turn-On Delay Time	V _{DD} =15V I _D =1A V _{GS} =10V R _{GEN} = 6 ohm		17		ns
t _r	Rise Time			14		ns
t _{D(OFF)}	Turn-Off Delay Time			205		ns
t _f	Fall Time			31		ns
Q _g	Total Gate Charge	V _{DS} =15V,I _D =1.3A,V _{GS} =10V		3.8		nC
Q _{gs}	Gate-Source Charge	V _{DS} =15V,I _D =1.3A, V _{GS} =10V		0.6		nC
Q _{gd}	Gate-Drain Charge			1.3		nC
DRAIN-SOURCE DIODE CHARACTERISTICS						
V _{SD}	Diode Forward Voltage	V _{GS} =0V,I _S = 1A		0.82	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.

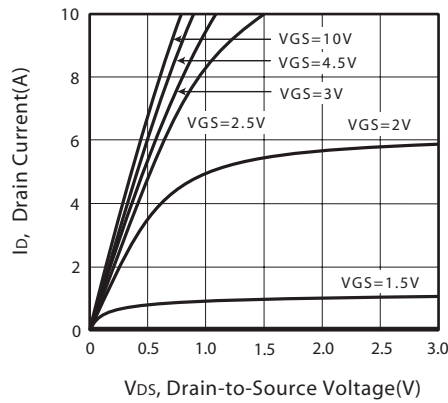


Figure 1. Output Characteristics

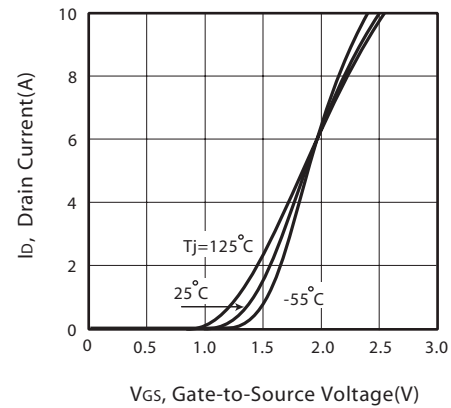


Figure 2. Transfer Characteristics

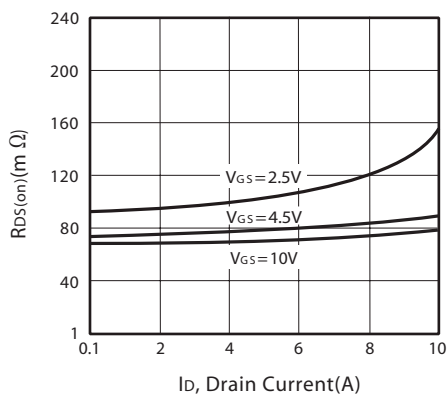


Figure 3. On-Resistance vs. Drain Current and Gate Voltage

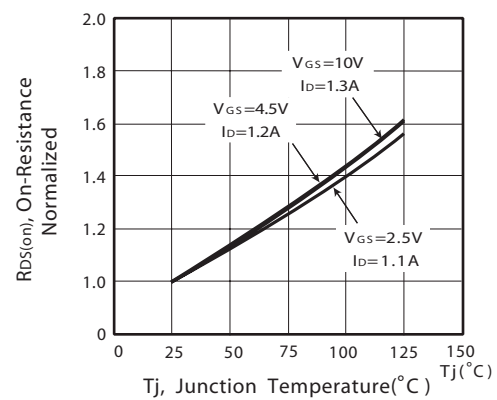


Figure 4. On-Resistance Variation with Drain Current and Temperature

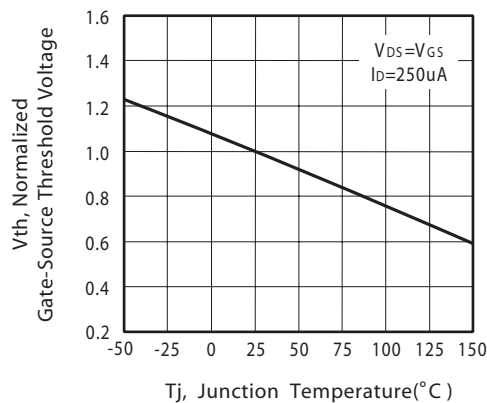


Figure 5. Gate Threshold Variation with Temperature

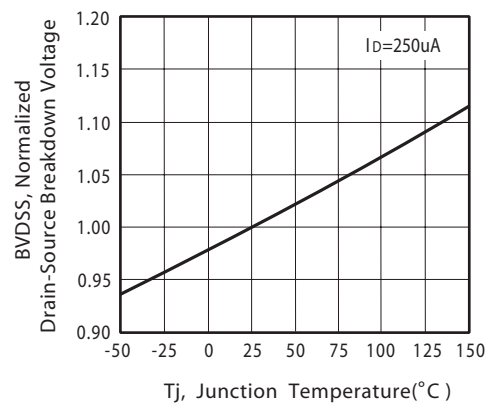


Figure 6. Breakdown Voltage Variation with Temperature

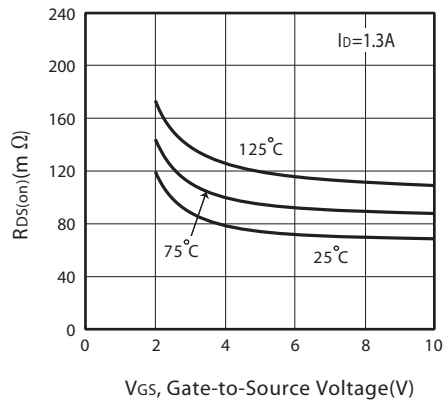


Figure 7. On-Resistance vs. Gate-Source Voltage

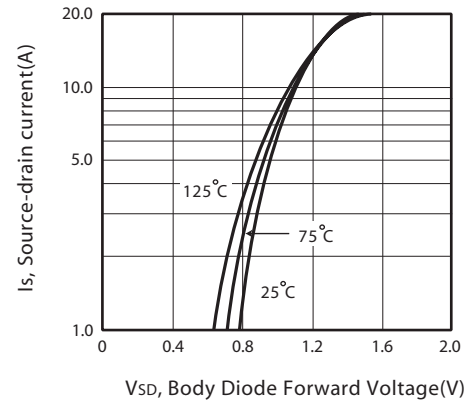


Figure 8. Body Diode Forward Voltage Variation with Source Current

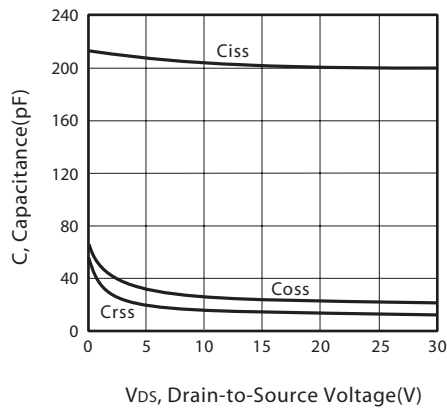


Figure 9. Capacitance

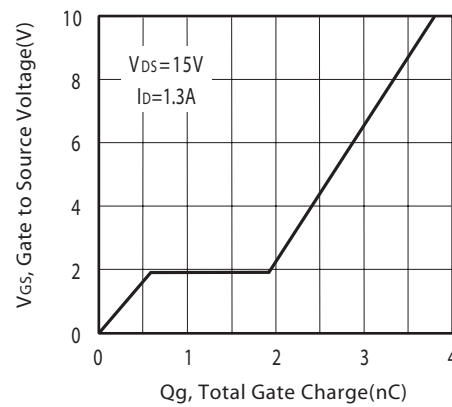


Figure 10. Gate Charge

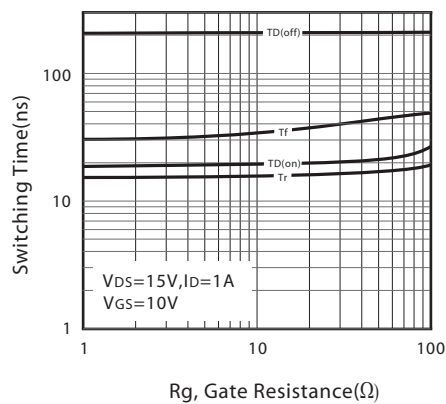


Figure 11. switching characteristics

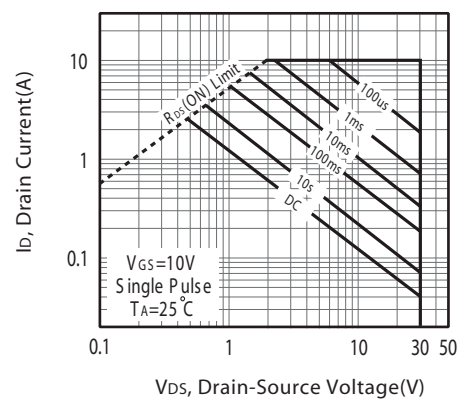
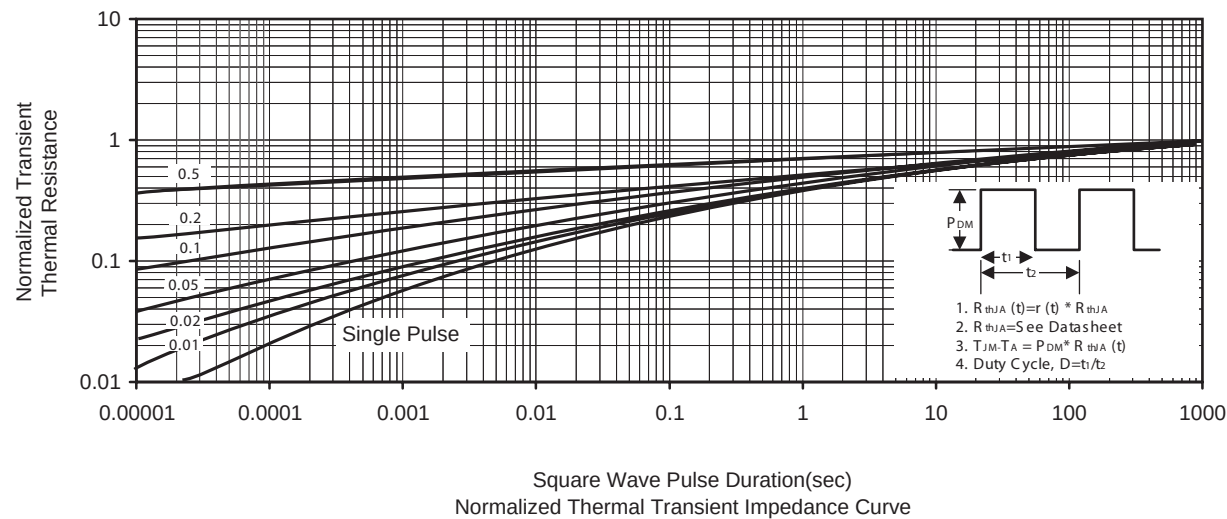
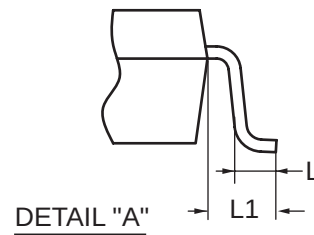
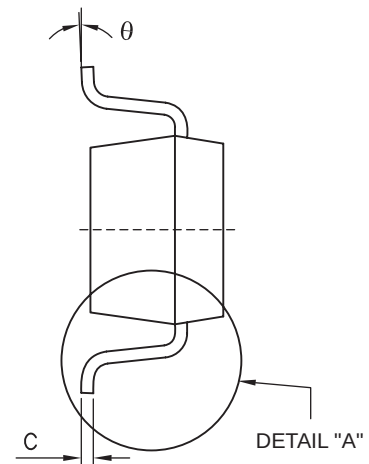
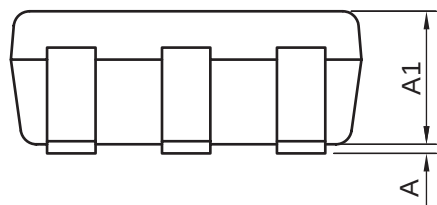
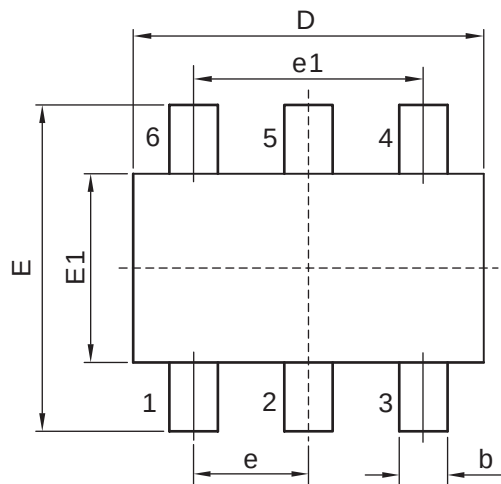


Figure 12. Maximum Safe Operating Area



PACKAGE OUTLINE DIMENSIONS

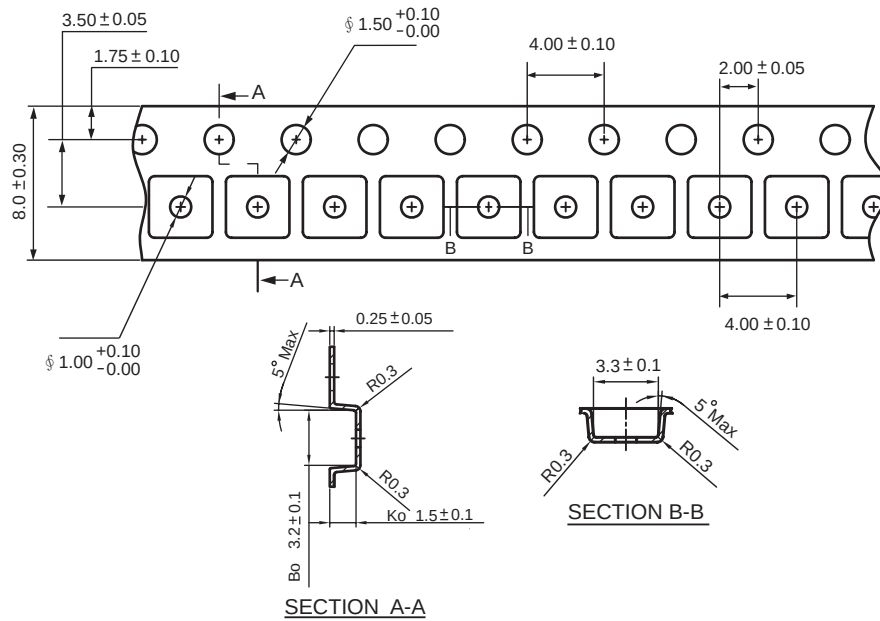
TSOT 26



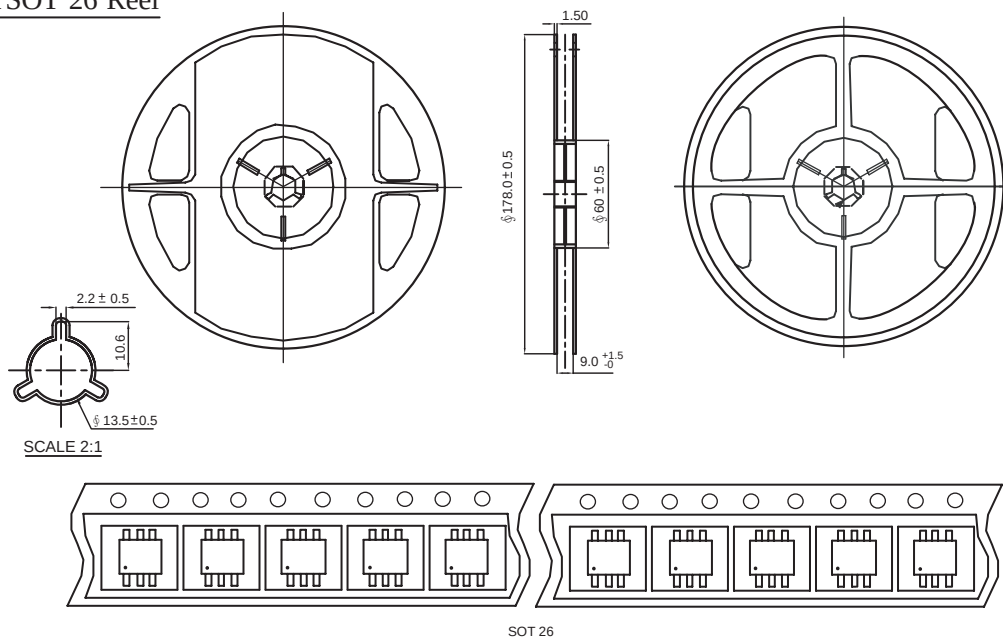
SYMBOLS	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
D	2.692	3.099	0.106	0.122
E	2.591	3.000	0.102	0.118
E1	1.397	1.803	0.055	0.071
e	0.950 REF.		0.037 REF.	
e1	1.900 REF.		0.075 REF.	
b	0.300	0.500	0.012	0.020
C	0.080	0.200	0.003	0.008
A	0.000	0.100	0.000	0.004
A1	0.700	0.800	0.028	0.032
L	0.300	0.600	0.012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



SOT 26

TOP MARKING DEFINITION

