



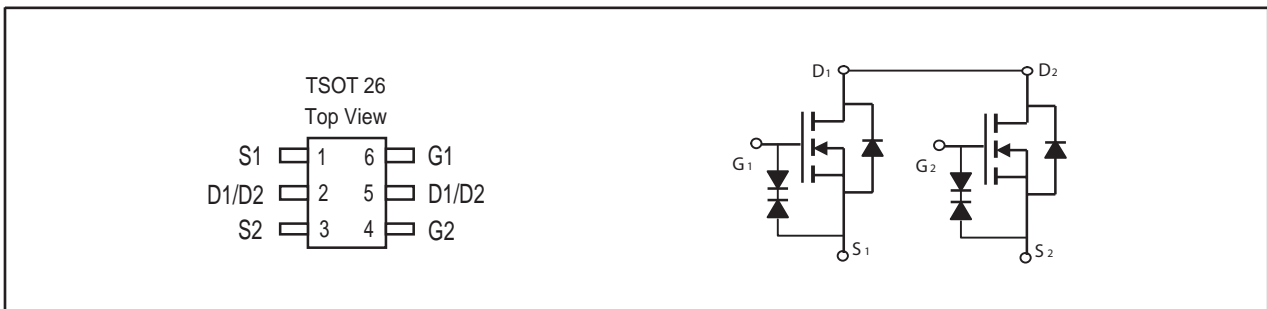
Dual N-Channel Enhancement Mode Field Effect Transistor

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
		T _A =70°C	2.1
I _{DM}	-Pulsed ^b	10	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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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						
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 ^c						
t _{D(ON)}	Turn-On Delay Time	V _{DD} =15V I _D =1A		17		ns
t _r	Rise Time			14		ns
t _{D(OFF)}	Turn-Off Delay Time	V _{GS} =10V R _{GEN} = 6 ohm		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.

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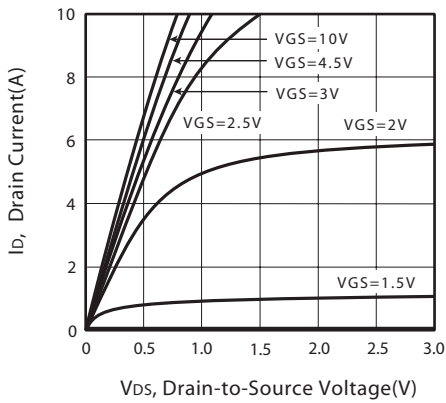


Figure 1. Output Characteristics

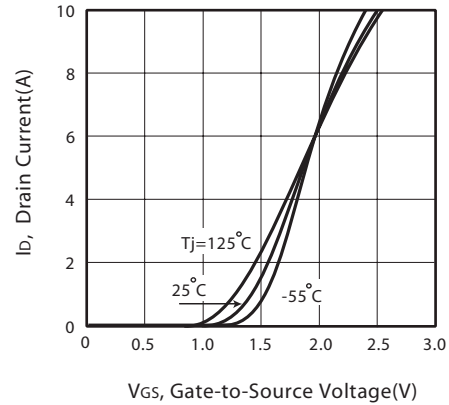


Figure 2. Transfer Characteristics

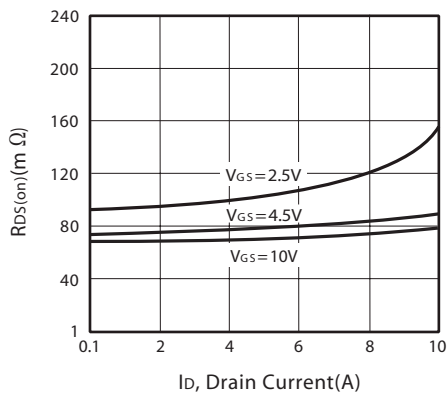


Figure 3. On-Resistance vs. Drain Current and Gate Voltage

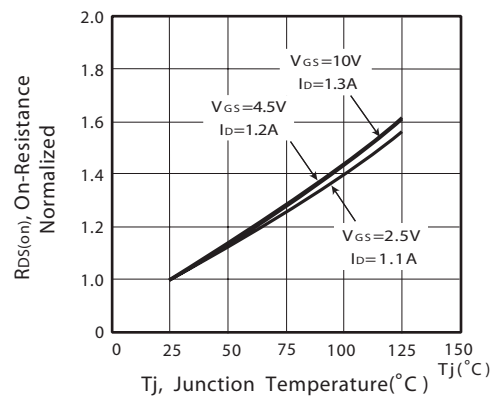


Figure 4. On-Resistance Variation with Drain Current and Temperature

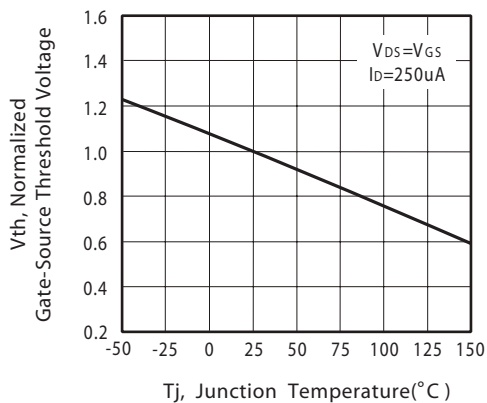


Figure 5. Gate Threshold Variation with Temperature

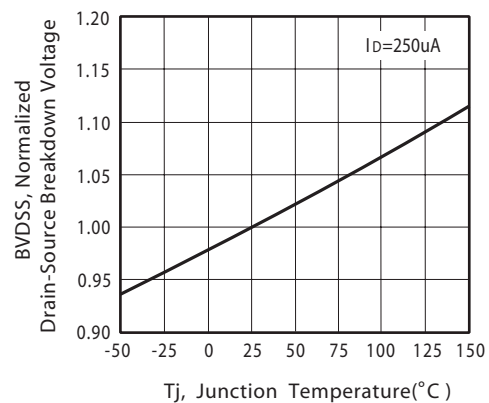


Figure 6. Breakdown Voltage Variation with Temperature

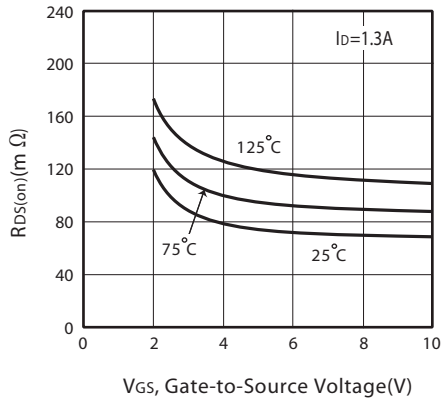


Figure 7. On-Resistance vs. Gate-Source Voltage

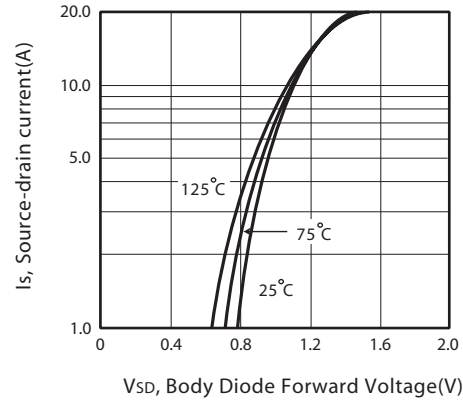


Figure 8. Body Diode Forward Voltage Variation with Source Current

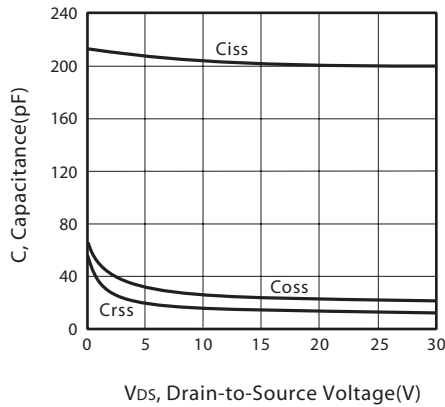


Figure 9. Capacitance

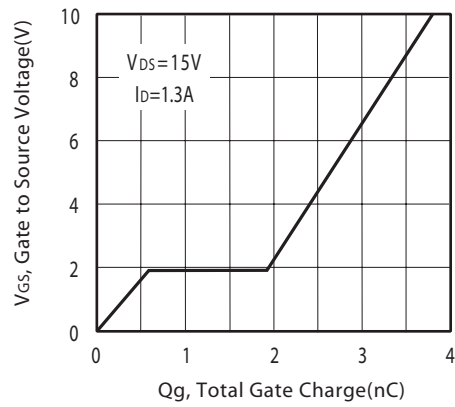


Figure 10. Gate Charge

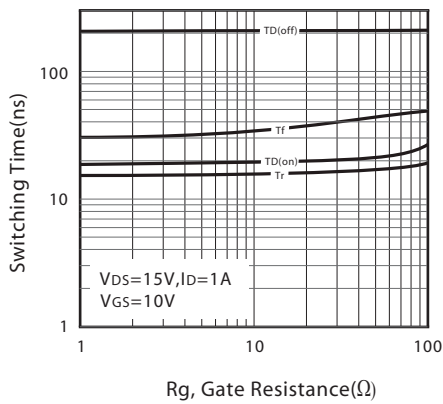


Figure 11. switching characteristics

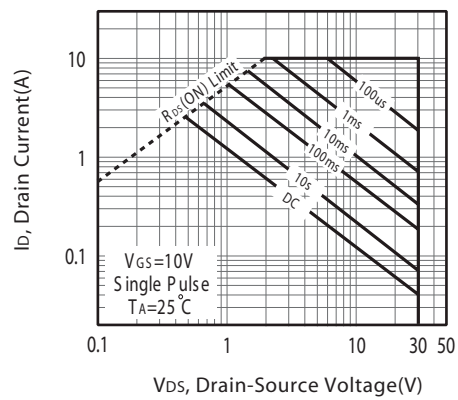
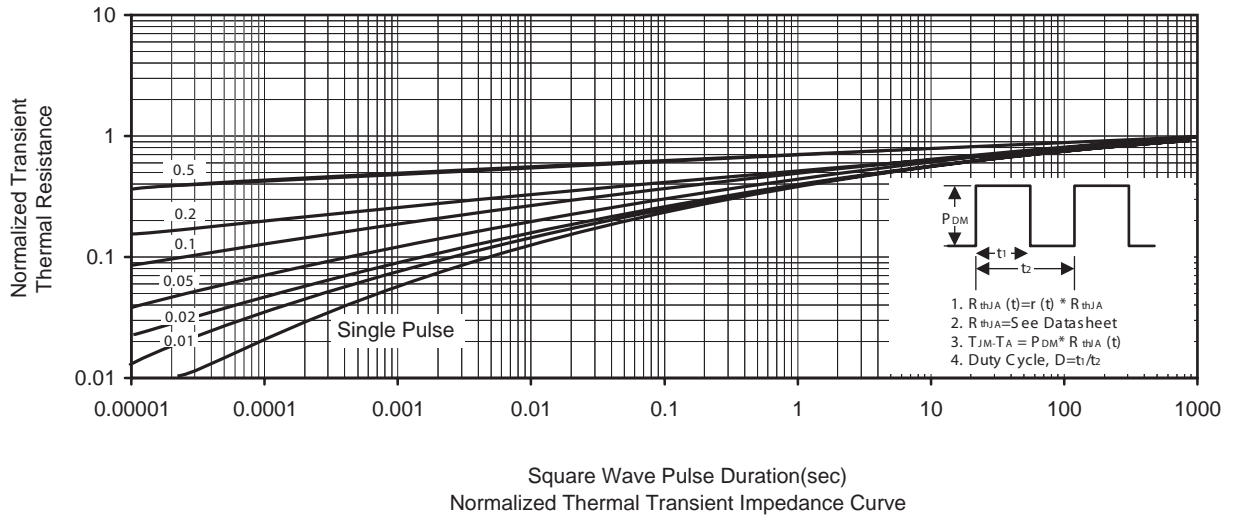


Figure 12. Maximum Safe Operating Area

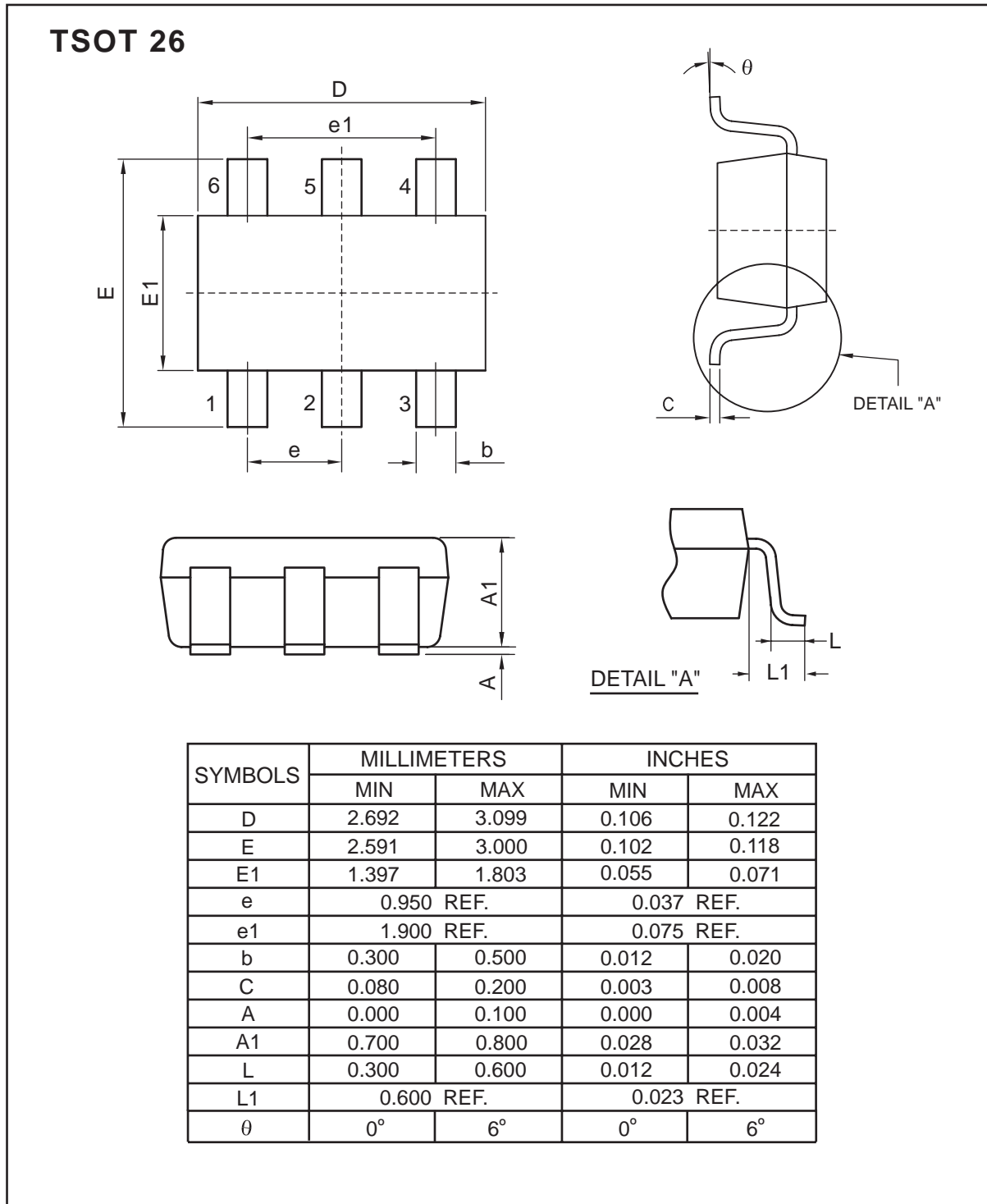
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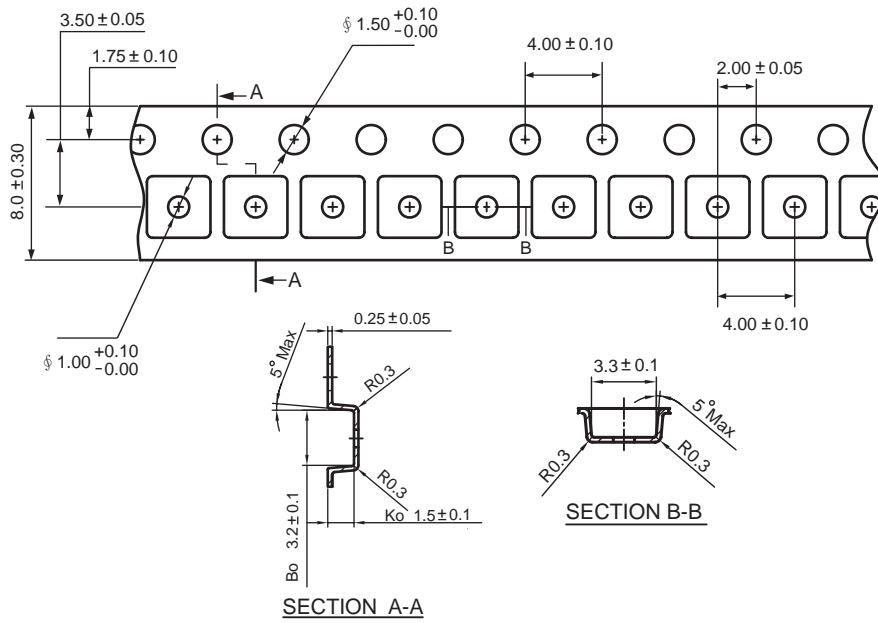
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PACKAGE OUTLINE DIMENSIONS

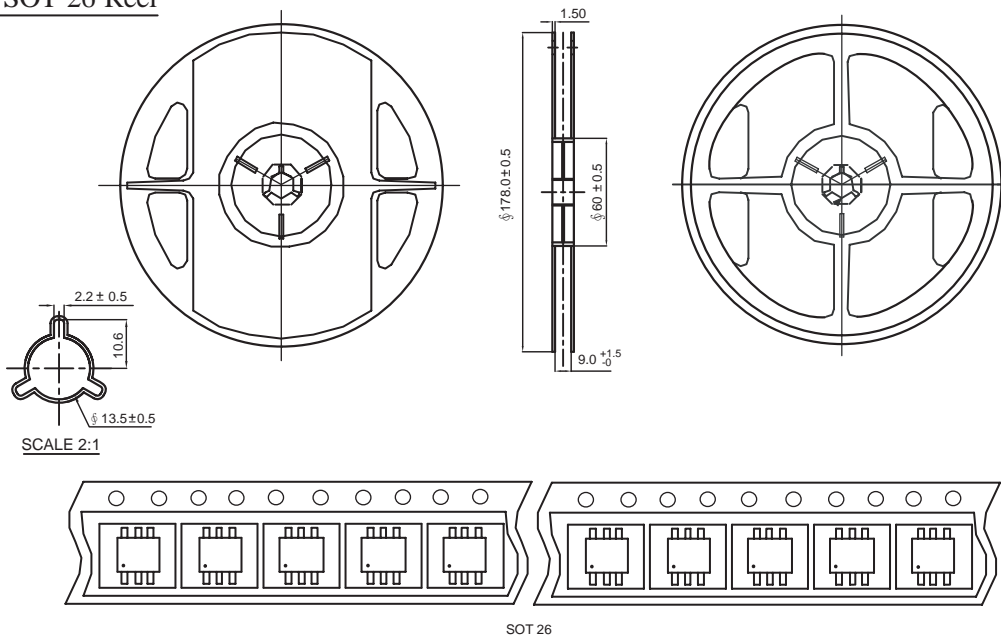


TSOT 26 Tape and Reel Data

TSOT 26 Carrier Tape



TSOT 26 Reel



TOP MARKING DEFINITION

