



YOUSHANG SEMICONDUCTOR

设计研发新型功率器件

各类小信号开关

中低压及高压大电流等场效应管

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企业微信二维码



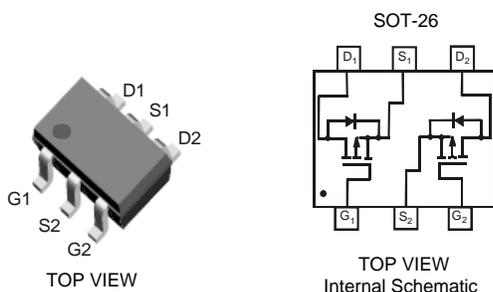
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Features

- Dual P-Channel MOSFET
- Low On-Resistance
 - 150 mΩ @ $V_{GS} = -4.5V$
 - 200 mΩ @ $V_{GS} = -2.5V$
 - 240 mΩ @ $V_{GS} = -1.8V$
- Very Low Gate Threshold Voltage $V_{GS(th)} \leq 1V$
- Low Input Capacitance
- Fast Switching Speed
- Low Input/Output Leakage

Mechanical Data

- Case: SOT-26
- Case Material: Molded Plastic, "Green" Molding Compound. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020
- Terminals Connections: See Diagram
- Terminals: Finish — Matte Tin annealed over Copper leadframe. Solderable per MIL-STD-202, Method 208
- Marking Information: See Page 4
- Ordering Information: See Page 4
- Weight: 0.015 grams (approximate)



Maximum Ratings @ $T_A = 25^\circ C$ unless otherwise specified

Characteristic	Symbol	Value	Units
Drain-Source Voltage	V_{DSS}	-20	V
Gate-Source Voltage	V_{GSS}	± 12	V
Drain Current (Note 1)	I_D	-2.0 -1.5	A
Pulsed Drain Current	I_{DM}	-7	A

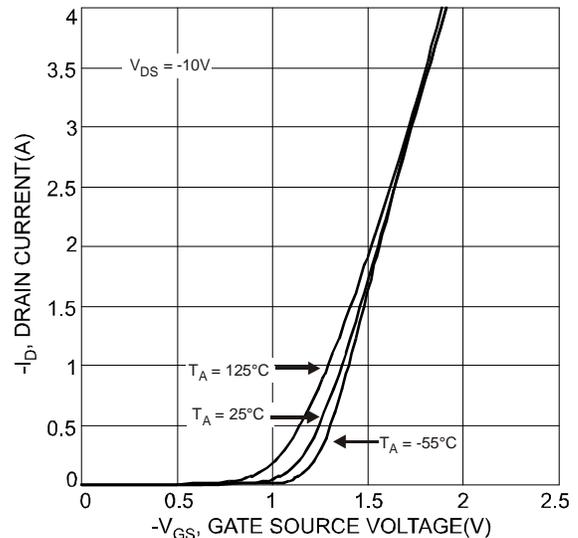
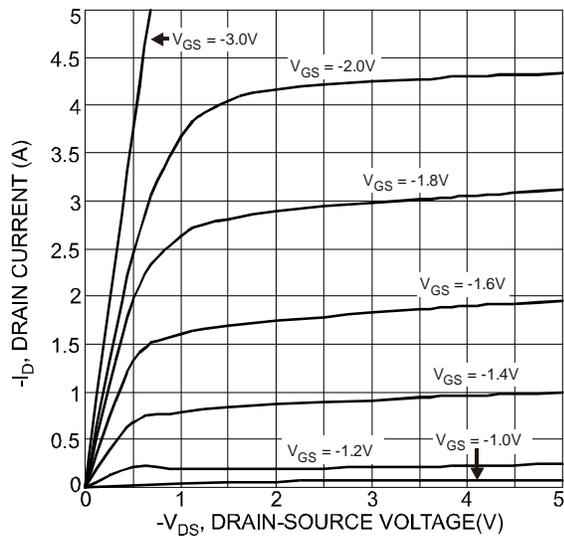
Thermal Characteristics

Characteristic	Symbol	Value	Units
Total Power Dissipation (Note 1)	P_D	600	mW
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	208	$^\circ C/W$
Operating and Storage Temperature Range	T_J, T_{STG}	-65 to +150	$^\circ C$

Electrical Characteristics @ $T_A = 25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
OFF CHARACTERISTICS (Note 4)						
Drain-Source Breakdown Voltage	BV_{DSS}	-20	—	—	V	$V_{GS} = 0V, I_D = -250\mu A$
Zero Gate Voltage Drain Current	I_{DSS}	—	—	-1.0 -5.0	μA	$T_J = 25^\circ\text{C}$ $T_J = 125^\circ\text{C}$ $V_{DS} = -20V, V_{GS} = 0V$
Gate-Source Leakage	I_{GSS}	—	—	± 100	nA	$V_{GS} = \pm 12V, V_{DS} = 0V$
ON CHARACTERISTICS (Note 4)						
Gate Threshold Voltage	$V_{GS(th)}$	-0.45	—	-1.0	V	$V_{DS} = V_{GS}, I_D = -250\mu A$
Static Drain-Source On-Resistance	$R_{DS(on)}$	—	92 134 180	150 200 240	m Ω	$V_{GS} = -4.5V, I_D = -2.0A$ $V_{GS} = -2.5V, I_D = -1.5A$ $V_{GS} = -1.8V, I_D = -0.5A$
Forward Transconductance	g_{FS}	—	3.1	—	S	$V_{DS} = -10V, I_D = -810mA$
Diode Forward Voltage (Note 4)	V_{SD}	—	—	-0.9	V	$V_{GS} = 0V, I_S = -0.5A$
DYNAMIC CHARACTERISTICS						
Input Capacitance	C_{iss}	—	320	—	pF	$V_{DS} = -16V, V_{GS} = 0V$ $f = 1.0MHz$
Output Capacitance	C_{oss}	—	80	—	pF	
Reverse Transfer Capacitance	C_{rss}	—	60	—	pF	
Turn-On Delay Time	$t_{D(on)}$	—	11.51	—	ns	$V_{DS} = -10V, V_{GS} = -4.5V$ $R_G = 6\Omega, R_L = 10\Omega$
Turn-On Rise Time	t_r	—	12.09	—	ns	
Turn-Off Delay Time	$t_{D(off)}$	—	55.34	—	ns	
Turn-Off Fall Time	t_f	—	27.54	—	ns	

Notes: 4. Short duration pulse test used to minimize self-heating effect.



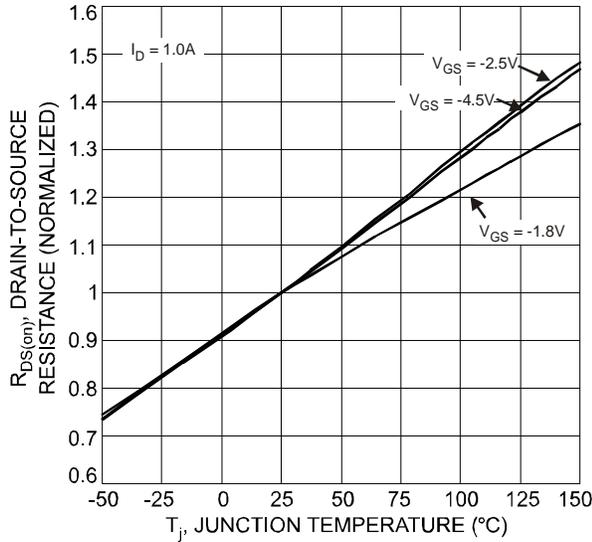


Fig. 3 On-Resistance Variation with Temperature

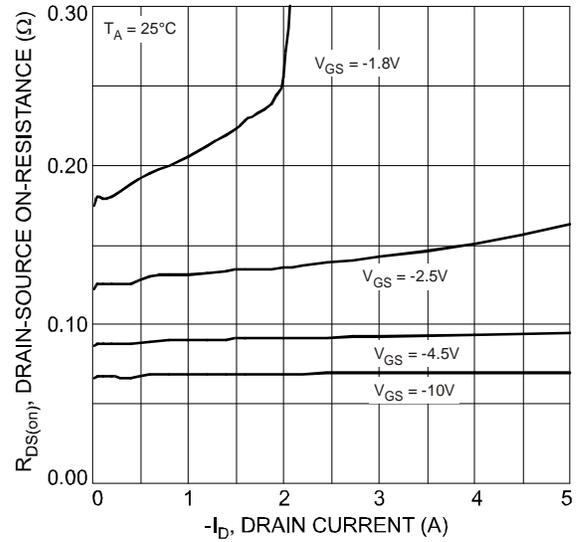


Fig. 4 On-Resistance vs Drain Current and Gate Voltage

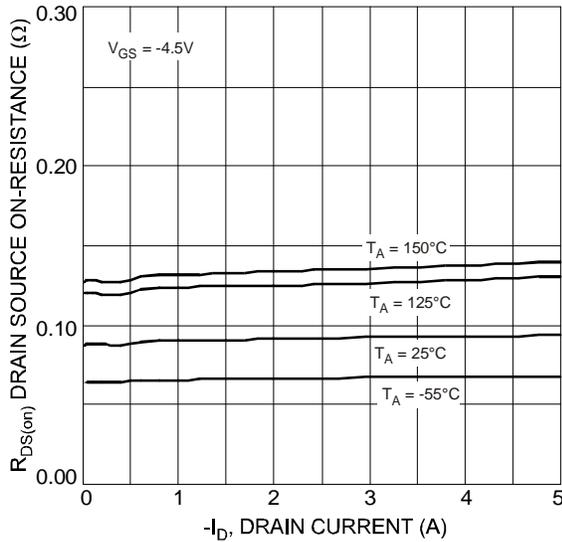


Fig. 5 Drain-Source On-Resistance Vs. Drain Current and Temperature

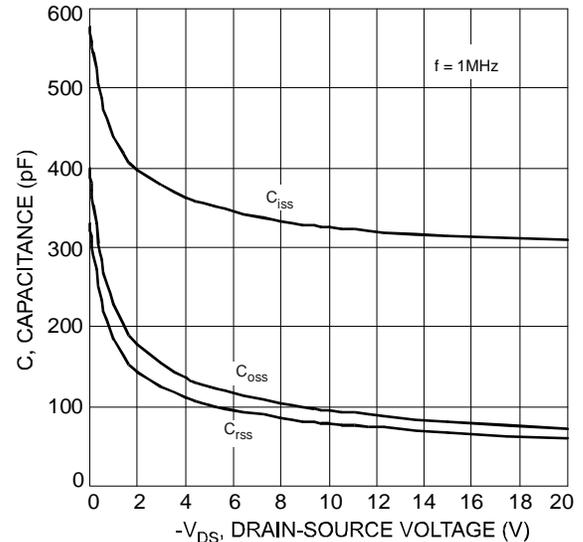


Fig. 6: Typical Capacitance

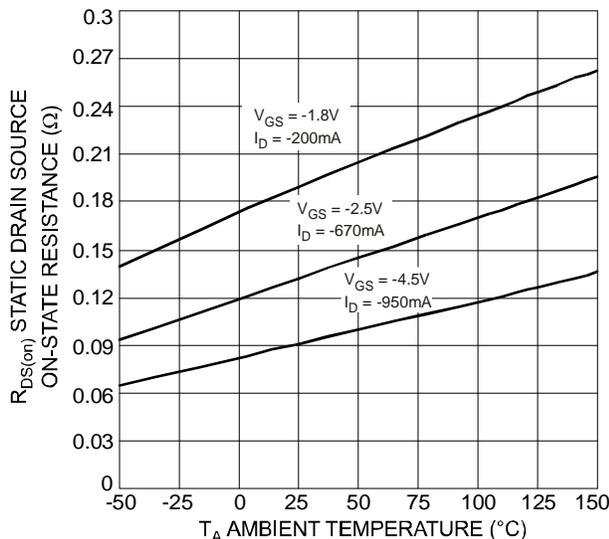


Fig. 7 Static Drain-Source On-State Resistance vs Ambient Temperature

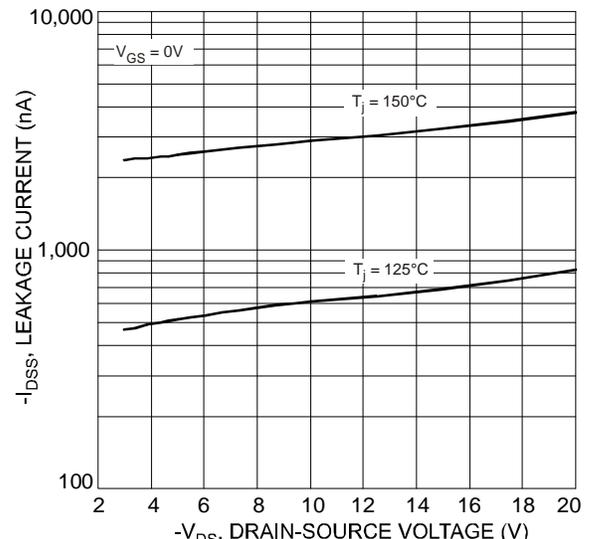


Fig. 8 Drain-Source Leakage Current vs Voltage

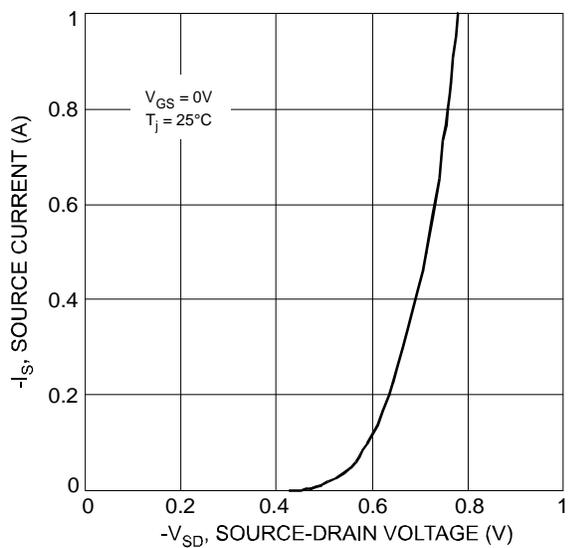
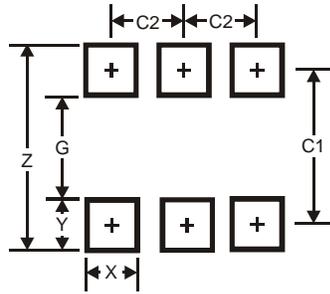


Fig. 9 Diode Forward Voltage vs. Current

Suggested Pad Layout



Dimensions	Value (in mm)
Z	3.20
G	1.60
X	0.55
Y	0.80
C1	2.40
C2	0.95