Maximum Ratings (@T_A = +25°C, unless otherwise specified.)

Characteristic		Symbol	Value	Unit
Drain-Source Voltage		V_{DSS}	20	V
Gate-Source Voltage		V_{GSS}	±12	V
Drain Current (Note 5)	T_A = +25°C T_A = +85°C	I_D	2.0 1.4	A
Pulsed Drain Current (Note 6)		I_{DM}	7.0	A

Thermal Characteristics (@T_A = +25°C, unless otherwise specified.)

Characteristic	Symbol	Value	Unit
Total Power Dissipation (Note 5)	P_D	650	mW
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	192	°C/W
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150	°C

Electrical Characteristics (@T_A = +25°C, unless otherwise specified.)

Characteristic	Symbol	Min	Typ	Max	Unit	Test Condition
OFF CHARACTERISTICS (Note 7)						
Drain-Source Breakdown Voltage	BV_{DSS}	20	—	—	V	V_{GS} = 0V, I_D = 10μA
Zero Gate Voltage Drain Current	I_{DSS}	—	—	1	μA	V_{DS} = 20V, V_{GS} = 0V
Gate-Source Leakage	I_{GSS}	—	—	±10	μA	V_{GS} = ±12V, V_{DS} = 0V
ON CHARACTERISTICS (Note 7)						
Gate Threshold Voltage	$V_{GS(TH)}$	0.6	—	1.0	V	V_{DS} = V_{GS}, I_D = 250μA
Static Drain-Source On-Resistance	$R_{DS(ON)}$	—	80	100	mΩ	V_{GS} = 4.5V, I_D = 2.5A
			105	140		V_{GS} = 2.5V, I_D = 1.5A
			165	215		V_{GS} = 1.8V, I_D = 0.1A
Forward Transfer Admittance	$\|Y_{fs}\|$	—	5	—	S	V_{DS} =5V, I_D = 2.4A
Diode Forward Voltage (Note 7)	V_{SD}	—	0.73	1.1	V	V_{GS} = 0V, I_S = 1.05A
DYNAMIC CHARACTERISTICS						
Input Capacitance	C_{iss}	—	188	—	pF	V_{DS} = 10V, V_{GS} = 0V f = 1.0MHz
Output Capacitance	C_{oss}	—	44	—	pF	
Reverse Transfer Capacitance	C_{rss}	—	30	—	pF	
Turn-On Delay Time	$t_{D(ON)}$	—	8	—	ns	V_{DD} = 10V, R_L = 10Ω I_D = 1A, V_{GEN} = 4.5V, R_G = 6Ω
Rise Time	t_R	—	3.8	—		
Turn-Off Delay Time	$t_{D(OFF)}$	—	19.6	—		
Fall Time	t_F	—	8.3	—		

Notes: 5. Device mounted on FR-4 PCB, or minimum recommended pad layout.
6. Pulse width ≤ 10μs, duty cycle ≤ 1%.
7. Short duration pulse test used to minimize self-heating effect.

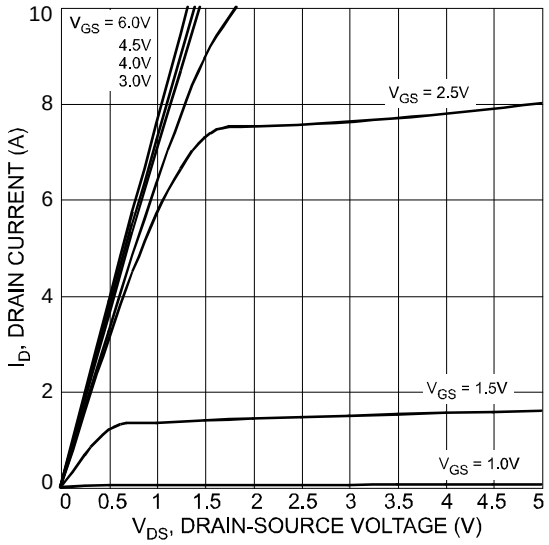


Fig. 1 Typical Output Characteristic

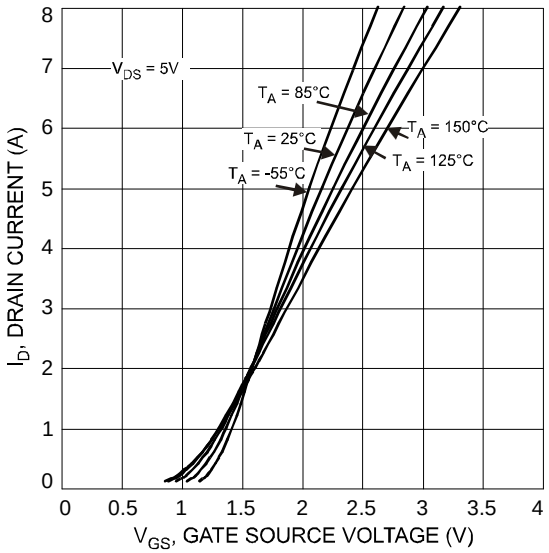


Fig. 2 Typical Transfer Characteristics

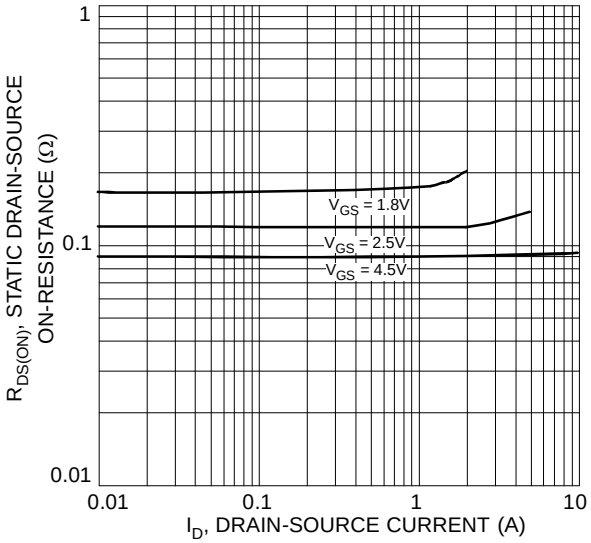


Fig. 3 On-Resistance vs. Drain-Source Current & Gate Voltage

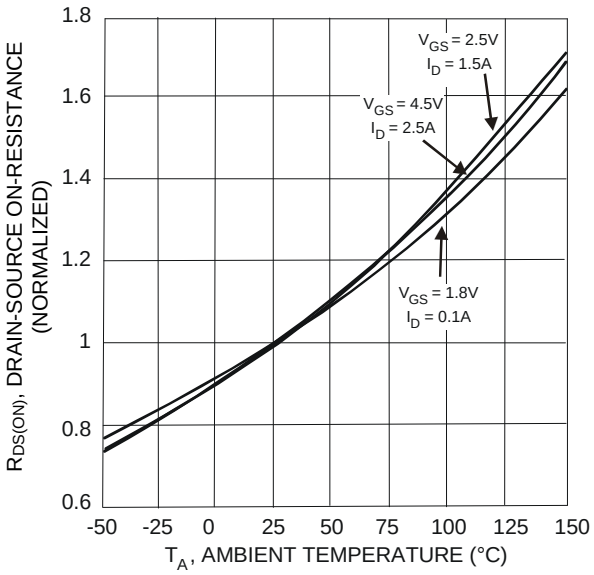


Fig. 4 Normalized Static Drain-Source On-Resistance vs. Ambient Temperature

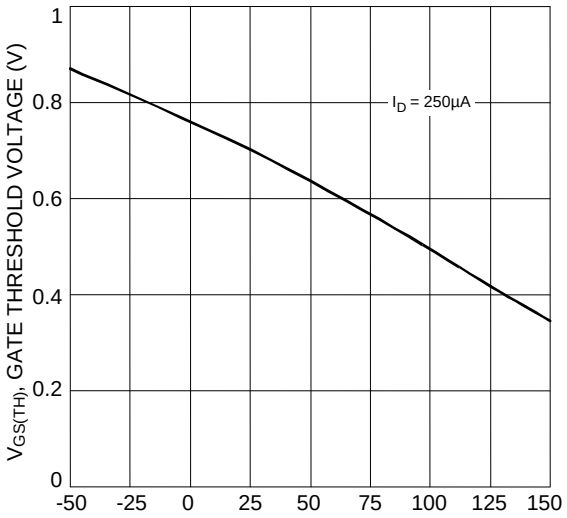


Fig. 5 Gate Threshold Variation with Temperature

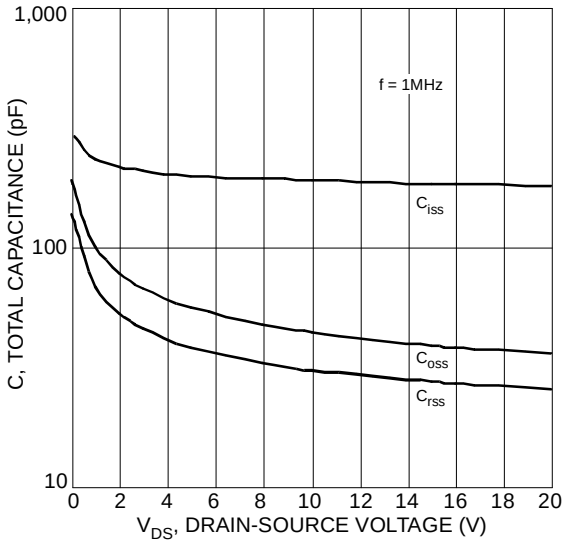


Fig. 6 Typical Total Capacitance

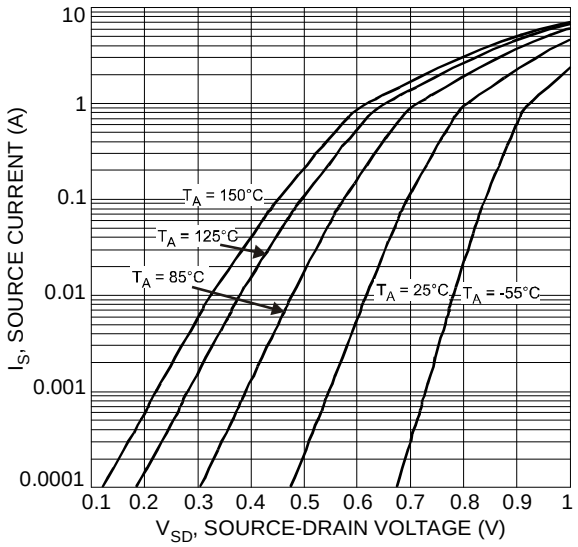
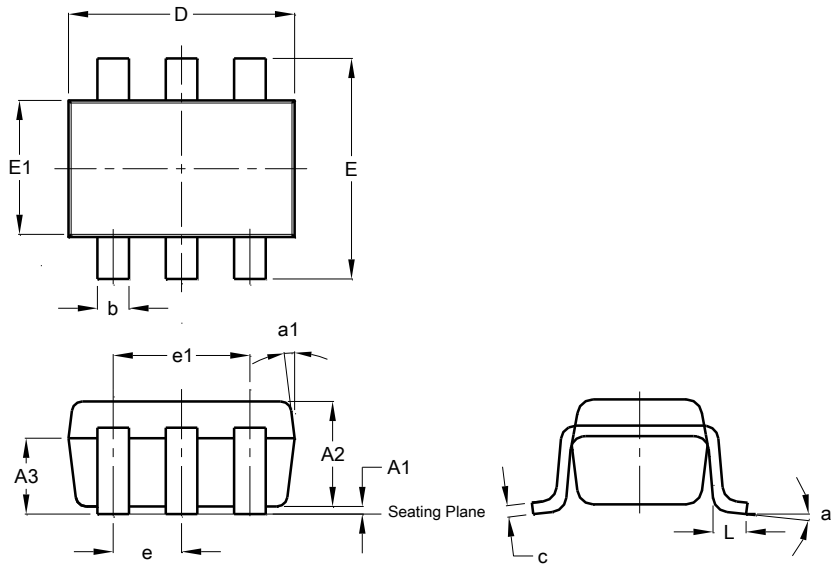


Fig. 7 Reverse Drain Current vs. Source-Drain Voltage

Package Outline Dimensions

Please see http://www.diodes.com/package-outlines.html for the latest version.

SOT26

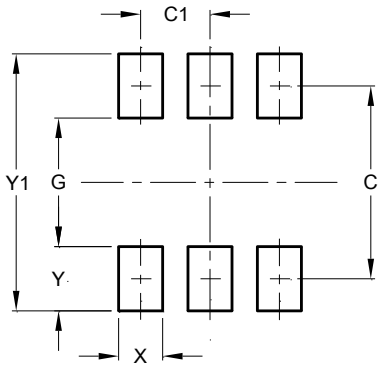


SOT26			
Dim	**Min**	**Max**	**Typ**
A1	0.013	0.10	0.05
A2	1.00	1.30	1.10
A3	0.70	0.80	0.75
b	0.35	0.50	0.38
c	0.10	0.20	0.15
D	2.90	3.10	3.00
e	-	-	0.95
e1	-	-	1.90
E	2.70	3.00	2.80
E1	1.50	1.70	1.60
L	0.35	0.55	0.40
a	-	-	8°
a1	-	-	7°
All Dimensions in mm			

Suggested Pad Layout

Please see http://www.diodes.com/package-outlines.html for the latest version.

SOT26



Dimensions	Value (in mm)
C	2.40
C1	0.95
G	1.60
X	0.55
Y	0.80
Y1	3.20

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